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## Temi di Discussione

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(Working Papers)

Too many lawyers? Litigation in Italian civil courts

by Amanda Carmignani and Silvia Giacomelli

February 2010

Number

745





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# TOO MANY LAWYERS? LITIGATION IN ITALIAN CIVIL COURTS

by Amanda Carmignani\* and Silvia Giacomelli\*

## Abstract

In this paper we investigate the relationship between the number of lawyers and civil litigation across Italian provinces over the period 2000-2005. First, we document the existence of a positive correlation between the number of lawyers and litigation. We then employ a 2SLS approach to verify the existence of a causal effect. We use as an exogenous source of variation for the number of lawyers the differences among provinces in the proximity of a law school in 1975. Our results show that the number of lawyers has a positive effect on litigation and that the magnitude of this effect is large.

**JEL Classification:** K41, J44, L84.

**Keywords:** civil justice, litigation, market for lawyers.

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\* Bank of Italy, Economics, Research and International Relations.



# 1 Introduction <sup>1</sup>

The Italian civil justice system is characterized by a high level of litigiousness compared to other European countries. According to the CEPEJ (2008), the litigation rate (i.e. the yearly ratio of new proceedings to the population) in Italy is 3.5 times that in Germany and twice the rates in France and Spain. The debate on the causes of civil justice inefficiency in Italy identifies the high level of litigiousness as one of the main players, together with shortcomings on the supply side and the inadequacy of the legal rules (Bianco, Giacomelli, Giorgiantonio, Palumbo and Szego, 2007). The high level of litigiousness helps clog courts and increases the length of proceedings, generating side effects in the economy: a large body of literature shows that an inadequate system of contract enforcement has a negative impact on the economic performance of a country. <sup>2</sup>

Another distinctive feature of the Italian legal system is the higher number of lawyers than in countries with comparable economies: among the major European countries, Italy has the highest number of lawyers per capita (CEPEJ, 2008). Indeed, within-country data suggest that in Italy there is a positive correlation between litigation rates and the ratio of lawyers to the population. The purpose of this paper is to conduct an empirical investigation into the existence of a causal effect of the number of lawyers on litigiousness in Italy.

The idea that a high number of lawyers may contribute to excessive litigation has been maintained in Italy for a very long time, at least since 1921 when Pietro Calamandrei, an eminent lawyer and politician, wrote an article titled “Too Many Lawyers!”. In the past few years, following a massive increase in the number of lawyers and the enduring crisis of the civil justice system,<sup>3</sup> this issue is once again sparking intense debate. Recently, the President of the Court of Appeal of Rome stated in a public speech that:

“The huge number of lawyers - Rome has as many lawyers as the whole of France - might unintentionally determine the risk of an increase in recourse to justice by citizens and, given the lack of resources, might affect the length of proceedings.”<sup>4</sup>

Why should a high number of lawyers increase litigation? Considering the number of lawyers as a proxy for the degree of competition in the market for legal services, the literature identifies two channels through which this may affect litigation. The first channel is the pricing effect: more competition may result in lower

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<sup>1</sup>A first version of this paper circulated in 2008 with the title “Too many lawyers? An empirical investigation of litigation in Italian civil courts”. We are grateful to Magda Bianco, Matteo Bugamelli, Luigi Cannari, Guido de Blasio, Giuliana Palumbo, Paolo Pinotti, three anonymous referees and seminar participants at the Bank of Italy, IDEP2009, European Association of Law and Economics (EALE2009) and SIE2009 for their valuable comments and suggestions. The usual disclaimer applies. The views expressed herein are those of the authors and do not necessarily represent those of the Bank of Italy.

<sup>2</sup>For references see, for instance, La Porta, Lopez-de Silanes and Shleifer (2008).

<sup>3</sup>According to the Doing Business Report the duration of a payment dispute in Italy is 1,210 days compared to an average duration of 463 days in OECD countries (World Bank, 2008).

<sup>4</sup>Claudio Fancelli, “Relazione per l’inaugurazione dell’anno giudiziario 2008”, Rome, 26 January 2008. Translated by the authors.

costs of legal services. Since this reduces the overall litigation costs for individuals, *ceteris paribus*, it is more likely that individuals will decide to bring a dispute before a court. A second, and more specific, channel derives from the nature of *credence goods* of legal services (Darby and Karni, 1973).<sup>5</sup> Credence goods (or services) are those for which the seller is also an expert who “knows more about the type of good or service the consumer needs than the consumer himself”.<sup>6</sup> In these markets sellers may have the incentive to exploit their informational advantage over consumers by defrauding them, for instance by persuading them to pay for goods or services they do not need (this phenomenon is known as overtreatment).<sup>7</sup> While from a theoretical point of view, overtreatment has been mainly analyzed within a monopolistic setting<sup>8</sup>, the role of competition in determining overtreatment has received wide attention in health economics. A large empirical literature has developed around the idea that physicians may respond to a fall in their incomes due to an increase in the number of suppliers (at a given level of demand) by making effort to induce demand for their services (Evans, 1974).<sup>9</sup>

In the market for legal services overtreatment can take various forms. For instance, lawyers may persuade their clients to bring a case to court even when this is not in their best interest, because of the low value of the claim (compared to the costs) or because the case has a low probability of success. Alternatively, lawyers may provide an unnecessarily sophisticated treatment of the case (writing complex acts and memorials, requesting hearings of unneeded witnesses). Incentives to inducing demand may also depend on the method of compensation for lawyers. Though the literature on lawyers’ compensation schemes is often ambiguous, some studies show that, when lawyers have spare capacity, workload-based methods provide stronger incentives to demand inducement than methods linking compensation to results (Emons, 2000; Polinsky and Rubinfeld, 2003). The former is the method employed in Italy, where compensation depends on the number and type of actions lawyers undertake for their clients (acts and memorials submitted, hearings attended, etc.) and where, up until very recently, contingent fees were not permitted.

We conduct our analysis on the effect of the number of lawyers on litigation in Italy using data at the provincial level over the period 2000-2005. We start our analysis with OLS estimations in which we control for other potential determinants of litigation and for year- and region-specific unobserved factors. Our estimates show a positive correlation between the number of lawyers and litigation.

In order to verify whether this result is determined by a causal relationship from lawyers to litigation, we adopt a Two-Stage-Least-Square (2SLS) approach. As an exogenous source of variation for the ratio of lawyers to the population we exploit the differences among provinces in the proximity of a law school in 1975. The use

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<sup>5</sup>Besides legal services, typical credence goods include medical services, financial advice services and the various type of repair services.

<sup>6</sup> Dulleck and Kerschbamer (2006).

<sup>7</sup>Other types of fraud that may occur in markets for credence goods are undertreatment (a consumer requires more complex treatments or more sophisticated goods than the ones provided by the expert) and overcharging (a consumer is charged for goods or services he did not receive).

<sup>8</sup>For a thorough survey of the literature, see Dulleck and Kerschbamer (2006)

<sup>9</sup>Overall, this literature provides evidence supporting demand-inducement behavior by physicians in response to competition; for a survey, see McGuire (2000).



of this instrument relies on the fact that proximity of a law school reduces the cost of becoming a lawyer, thus it may favour the development of the legal profession in a given province over and above what may be the demand for legal services in that same province. Our results confirm that the number of lawyers has a positive effect on litigation when we account for the endogeneity of this variable. The magnitude of the effect is significant: moving from the 25th percentile to the 75th percentile in the provincial distribution of the ratio of lawyers to the population, the litigation rate increases by 16 per cent.

This paper contributes to the relatively scarce literature on the effect of the number of lawyers on litigation and improves it by directly addressing the endogeneity issues that arise in the analysis. The number of lawyers is generally included as a control variable in empirical studies on the determinants of litigation with ambiguous results. However, this literature largely ignores the endogeneity issue. A positive and significant association between the number of lawyers and litigation is found in Hansenn (1999) on U.S. courts data, in Ginsburg and Hoetker (2006) with reference to litigation in Japan, and in Felli, Tria, Londono-Bedoya and Solferino (2007) on Italian data. Posner (1997); Yates, Creel Davis and Glick (2001); and Yates, Tankersley and Brace (2009) do not find any significant relationship in different U.S. datasets; the same result is obtained by Clemenz and Gugler (2000) on Austrian data.

The paper is organized as follows. Section 2 presents data on litigation and lawyers in Italy and discusses the key institutional features. Section 3 describes the data and the empirical specifications. Sections 4 and 5 present the results and discuss their robustness. Section 6 concludes.

## 2 Litigation and lawyers in Italy: institutional features and measurement issues

In the Italian judicial system the *Tribunali* are the main courts: they administer the more complex and substantial first-instance civil cases. This is why we chose as our measure for litigation the number of first-instance ordinary civil proceedings (*procedimenti di cognizione ordinaria*) filed every year in the *Tribunali*, scaled by population (the litigation rate). Our measure mainly includes disputes on contract, property, business organization and tort.<sup>10</sup> It does not include small value claims.<sup>11</sup>

As far as lawyers are concerned, entry in the market is regulated by national laws. The professional requirements to become lawyers are: a university degree in law, two years of professional practice, passing a professional exam. The professional exam is administered by the lawyers' professional association (*ordine degli avvocati*) through its local branches, although the process is supervised by the Court of Appeals. Registration with the professional association (with a local branch) is compulsory and gives the lawyer the exclusive right of legal representation. Lawyers may represent clients in any Italian court, irrespective of the branch of affiliation to the professional association. Since comprehensive data on registered lawyers are

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<sup>10</sup> Our data do not include litigation in some matters which are dealt with in the *Tribunali*, but are generally assigned to special divisions (such as labor, social security, family law and bankruptcy).

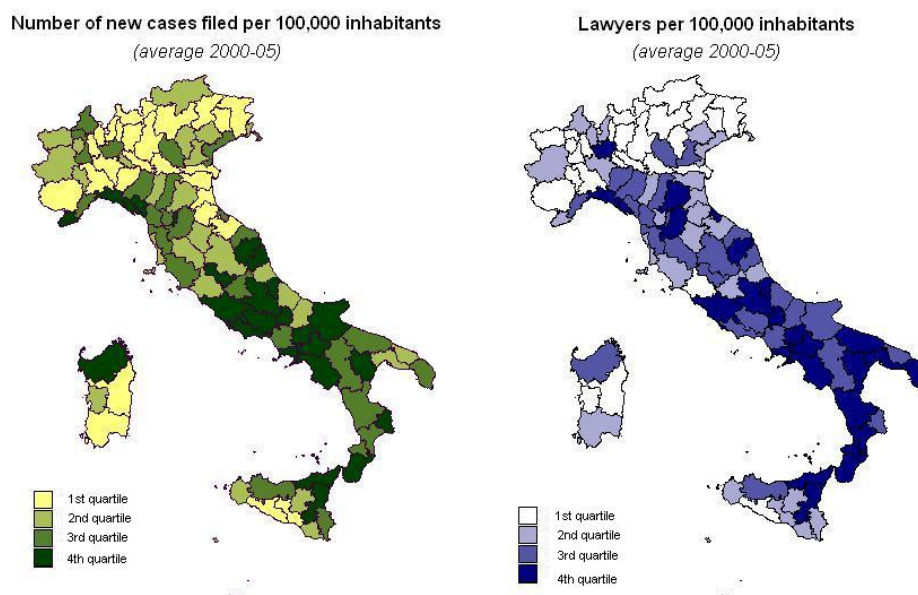
<sup>11</sup> Small value claims (below EUR 2,852, or below EUR 15,493 for vehicles-related accidents) are dealt with in the Justice of Peace courts by non-professional judges.

not available, we use the number of enrollments in the pension scheme managed by the professional association as a measure for the number of lawyers. Only lawyers whose annual earnings exceed a certain threshold may enroll in the scheme. Thus, our measure underestimates the number of qualified lawyers as it emerges from the registers of the lawyers' professional association, but it is a more accurate measure of the number of actual practicing lawyers.

Both data on civil proceedings and lawyers are collected at the level of the *Tribunali* (there are 165 *Tribunali* in Italy) and then aggregated at the level of the 103 Italian provinces.<sup>12</sup>

The average litigation rate in our sample is 793 cases filed per 100,000 inhabitants in a year (over the period 2000-2005). Litigation rates vary widely across provinces (figure 1). On average they are higher in Central and Southern provinces than in Northern ones (the figures are respectively 872 and 696 cases per 100,000 inhabitants).

Figure 1: Number of new cases filed and number of lawyers per 100,000 inhabitants (average 2000-05)

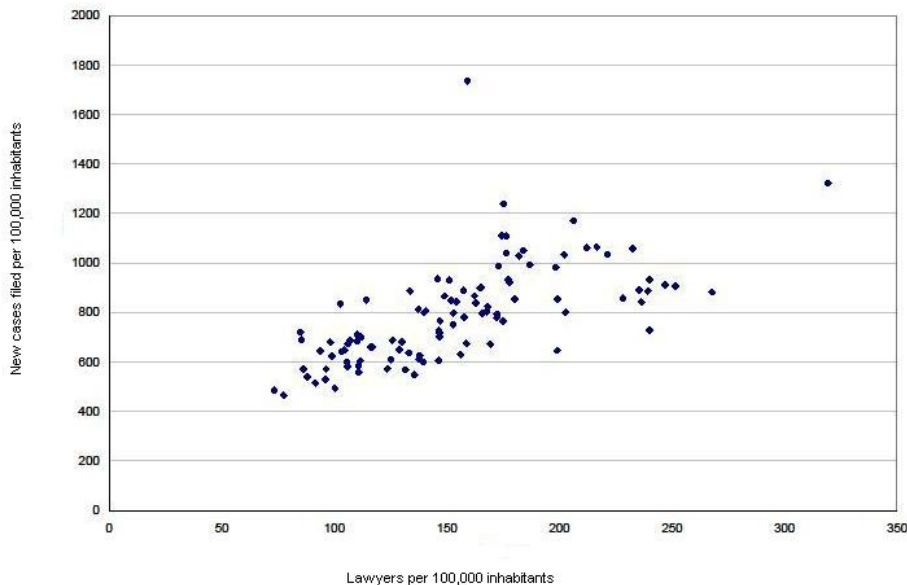


The provinces with the highest number of lawyers per capita are the ones where the biggest cities are located (namely, Rome and Milan); as shown in Figure 1, on average there are more lawyers in the Southern provinces than in the rest of Italy (the number of lawyers per 100,000 inhabitants is 176 in the South and 142 in the Centre and North of Italy).

As Figure 2 shows, litigation and lawyers are positively correlated across provinces. However, this association may be due to the fact that both variables respond to

<sup>12</sup>Provinces are the administrative territorial units which correspond to level 3 in the Eurostat NUTS classification; they are comparable in size to U.S. counties.

Figure 2: New cases filed and lawyers per 100,000 inhabitants: correlation across provinces



other factors. To take this into account we perform multivariate analysis.

### 3 Empirical specification and data description

To perform our analysis we assembled a dataset that matches information on judicial proceedings filed in courts and on the number of lawyers for the 103 Italian provinces over the years 2000-2005. The choice of the time period was mainly dictated by the availability of homogeneous data on judicial proceedings.<sup>13</sup>

We employ the following empirical specification:

$$litigation_{i,t} = \alpha_0 + \alpha_1 lawyers_{i,t} + \alpha_2 X_{i,t} + \epsilon_{i,t} \quad (1)$$

where  $litigation_{i,t}$  is the number of first-instance cases filed in province  $i$  during year  $t$  over population;  $lawyers_{i,t}$  is the number of lawyers over population,  $X_{i,t}$  is a set of control variables and  $\epsilon_{i,t}$  is an error term.

The set of control variables includes economic and social factors that are likely to influence litigation. Economic variables comprise the value added per capita (*gdp*) and annual growth rate of value added per capita (*gdp growth*). The first variable attempts to capture the size and development of the local economy. However, its influence on litigation is ambiguous: on the one hand the larger the economy is the higher the number of transactions, hence the potential for disputes (Posner, 1997;

<sup>13</sup>A major organizational reform of the judicial system took place in 1999, making it difficult to construct a homogeneous dataset that includes pre-reform data.

Hansenn, 1999; Clemenz and Gugler, 2000; Ginsburg and Hoetker, 2006); on the other hand, more economic development might reduce litigation. The growth rate of value added per capita is a proxy for the economic cycle. It should be negatively associated with litigation, as when the economy slows down, parties may find it more difficult to meet obligations, leading to an increase in disputes (Clemenz and Gugler, 2000; Ginsburg and Hoetker, 2006).

Turning to social factors, we include a measure of the degree of urbanization (*urban*) as a proxy for social complexity. This might influence litigation in two ways. Firstly, in a more complex society the number of social interactions are greater, thus the potential for conflicts. Secondly, in a complex society it is more likely that interactions occur between individuals who are not well acquainted or do not belong to close-knit communities, in these circumstances disputes are more likely to be brought to court rather than solved through informal mechanisms (Posner, 1997; Hansenn, 1999; Yates et al., 2001; Ginsburg and Hoetker, 2006; Yates et al., 2009). The amount of litigation may also be affected by the level of trust and the attitude to cooperative behavior in a local community (social capital) (see Yamamura (2008)). A higher level of social capital may decrease litigation, both reducing the propensity for parties to breach contracts in the first place, and favoring the resolution of disputes outside courts once they occur. Following Putnam (1993), we use as a proxy for the level of social capital the number of non-profit organizations per capita. To take into account possible correlations between civil disputes and criminal activity, we add a measure of the local incidence of crime (*crime*).

Finally, we include a measure of the length of proceedings as a proxy for the efficiency of local courts (*length*). The effect of the length of proceedings on litigation is ambiguous. On the one hand, lengthy proceedings reduces the value of the potential judgment for plaintiffs, discouraging them from bringing suits (Priest, 1989). On the other hand, lengthy proceedings may increase the number of potential disputes as they give incentives to parties to breach contracts with a view to postponing payments (Miller, 1989; Marchesi, 2003). Our measure is the average disposal time for cases filed in the *Tribunali* over the period 1995-1998. We use lagged values to reduce the potential endogeneity of this variable.

Detailed definitions of the variables and sources are reported in Table 1; Table 2 shows descriptive statistics and Table 3 reports the correlation matrix among all the variables.

## 4 Baseline results

Table 4 presents the results of the OLS estimates on equation (1), all regressions include year and regional fixed-effects.<sup>14</sup> As we will discuss in more detail in the next section, the choice of including regional fixed-effects rather than provincial fixed-effects in the regression is mainly dictated by comparability reason: as the instrumental variable we use to address the issue of causality is time invariant, we are unable to perform 2SLS estimates with provincial fixed-effects that are directly comparable with the OLS estimates. However, we also estimated the model using

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<sup>14</sup>Regions are the administrative territorial units which correspond to level 2 in the Eurostat NUTS classification. There are 20 regions in Italy; we aggregated two regions for a total of 19 dummies.

provincial fixed-effects: the results (not reported) are similar to those in Table 4.

The estimates show that the number of lawyers over population is positively correlated with litigation rates, the coefficient is statistically significant at the 1 per cent level in any of the specifications (Table 4). Among the controls, the coefficients of the economic variable are non-significant, while those of the social variables are significant and have the expected sign. The length of civil proceedings appears to favor recourse to the court.

According to our estimates the effect of the number of lawyers on litigation is relevant. Going from the province corresponding to the 25th percentile of the distribution of the number of lawyers per capita to the province corresponding to the 75th percentile of the distribution, the litigation rate increases by 14 per cent (the number of cases increases from 735 per 100,000 inhabitants to 840) (Table 4, column 3).

## 5 Causality

### 5.1 Instrument

In this section we address the issue of potential reverse causality between lawyers and litigation. As discussed earlier, a large number of lawyers (i.e. more competition in the market for lawyers) might favor litigation either through price-effect or through inducement demand effect. However, it might also be the case that a high level of litigation (i.e. large demand for legal services) determines the presence of a large number of lawyers. In equilibrium both variables are determined simultaneously. This may cause an upward bias in the OLS estimates.

In order to take this issue into account and identify a causal effect from lawyers to litigation, we employ a 2SLS approach using as an exogenous source of variation for the number of lawyers the differences among provinces in the proximity of a law school. The rationale behind the use of this instrument is the idea that the choice to become a lawyer is influenced by educational costs (i.e. the costs of attending a law school). In Italy, where universities are generally public, a significant share of these costs consists of living costs. The magnitude of these costs depends, among other things, on the distance between a student's hometown and the closest law school: the longer the distance the higher the living costs.<sup>15</sup> Moreover, the proximity of a law school seems to be a good instrument for the number of lawyers since law schools in Italy offer similar probabilities of admission.

We define our instrument as a variable ( $lsproximity75$ ) which is equal to zero in the provinces with a law school and equal to the distance (in kilometres) between the province and the closest province with a law school elsewhere.<sup>16</sup> This instrument should also capture the presence of a local tradition for legal studies. This might promote the development of the profession at a local level beyond what might be determined by the demand for legal services. According to our definition, we expect a negative correlation on first-stage regression of *lawyers* on the instrument.

However, the localization of law schools in a certain area could be affected by the level of demand for legal services in the same area; in this case our instrumental variable would be correlated with the error term in equation (1). To account for

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<sup>15</sup>Our approach resembles that of Card (1995), which uses variation in college proximity as an instrument for educational choices.

<sup>16</sup>We consider the distance between provinces' chief towns.

this issue and to ensure the exogeneity of the instrument, we construct it with reference to a period that precedes our sample period. More in detail, we consider the localization of law schools in 1975. The choice of the reference year is aimed at ensuring the exogeneity of the instrument while maintaining the connection between students in law in the past and lawyers in our sample period. Indeed, the Italian university system has been characterized by substantial stability until the early nineties as a result of a centralized organization that required legislative measures to open new universities (Bratti, Checchi and de Blasio, 2008). Stability has also characterized the presence of law schools by province: the number of provinces with law schools has remained almost unchanged for a very long time (in the period between 1875 and 1986 it rose from 20 to 28). Thus, the choice of a different reference year before the nineties would not produce substantial changes in the definition of our instrumental variable (see Section 5.3).

Figure 3 shows the distribution of the instrument across Italian provinces. In about 1/4 of the provinces there is a law school; another quarter of the provinces are at such a distance from a province with a law school that daily commuting for students attending the school is feasible (we assume this distance is less than 60 km); half of the provinces are at such a distance that students do not have the option of living at home while attending the school.

Figure 3: Law school proximity in 1975



Our instrumental variable refers to a period that precedes our sample period; however, if litigation is persistent over time this may not be enough to ensure the exogeneity of the instrument. To check whether this is the case, we consider the

evolution of litigation rates across judicial districts over time (before the 1990s very limited judicial information is available at a more disaggregated level). Table 5 reports the ranking of judicial districts by litigation rates for different time periods from 1951 to 2000, the districts are ranked from the least to the most litigious ones.<sup>17</sup> Data show that the ranking varies over time; this may be interpreted as evidence, albeit rough, of the fact that litigation is not persistent and that it is reasonable to assume that the localization choices of law schools in the past are not correlated with current levels of litigation.

## 5.2 Results

The results of the 2SLS estimates are reported in Table 6 (columns 1-3). As in the OLS regressions, we estimate a model with year fixed-effect and regional dummies. Our instrument has the expected sign on first stage regressions and the F-statistic of excluded instruments is generally well above the levels that indicate weakness of the instrument. The results confirm the previous findings: the number of lawyers has a positive effect on litigation rates, the coefficients are statistically significant.

In comparison with the OLS estimates, the 2SLS estimates produce slightly larger coefficients. As a result, the magnitude of the effect of *lawyers* on *litigation* is greater: moving from the 25th to the 75th percentile in the provincial distribution of the number of lawyers per capita, the litigation rate increases by 16 per cent (Table 6, column 3).

This result may be explained by the existence of an attenuation bias in the OLS estimates due to measurement errors in the lawyers population that prevails on the upward bias due to simultaneity. Indeed, our measure may under-report the number of lawyers for two reasons. First of all, as already mentioned, we do not measure the number of registered lawyers but only the number of lawyers whose earnings are above a certain threshold. Secondly, we measure the number of lawyers with reference to local affiliations to the professional organization, but lawyers may carry out their professional activity everywhere in the country irrespectively of the place of affiliation. However, it is reasonable to maintain that in both cases the under-reporting is not so relevant. In the first case, the earning threshold is very low; in the second case, it is widely held among practitioners that clients tend to choose local lawyers to represent them, both to save on costs and to exploit the lawyers' knowledge of the local *legal culture* (i.e. social norms and work habits of judges and lawyers in local courts).

## 5.3 Robustness

Our results are subject to two main caveats. Firstly, since our instrument is time invariant we are unable to include in the regressions provincial-fixed effects to control for unobserved factors. Thus, we are unable to fully rule out the possibility that the correlation of our instrument with the number of lawyers depends on the fact that both variables respond to omitted factors. In order to reduce this concern, we include in our basic specification additional controls, aimed at capturing features of each province that are likely to be correlated with the presence of a law school,

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<sup>17</sup>Judicial districts (*distretti di corte d'appello*) are the smallest territorial unit in the organization of the Italian judicial system for which data are available before 1995; the number of districts has grown from 26 to 29 over the period 1951-2000.

such as province size or administrative role. In particular, we control for the size of the province, as measured by the living population (*province size*), and for the presence in the province of the regional chief town (*chief town*). The results of the regressions, reported in Table 6 (columns 4 and 5), show that the inclusion of any of the two variables in the model does not alter our findings.

Secondly, in building our instrument we made discretionary choices regarding the reference year for the localization of law schools. In order to check whether the results obtained depend on the year chosen, we define the instrumental variable using 1986 as a benchmark year (*lsproximity86*). As expected, due to the institutional features of the Italian university system, this instrument only slightly differs from *lsproximity75*: the number of provinces with a law school increases by one (as a result of the opening of two new schools and the closing of one); both the mean value and the median value of the distance decreases by 5 km. Our main results still hold (Table 7, column 1).<sup>18</sup>

Finally, as a further robustness check we use another definition of the instrument, directly related to the presence of the law school in the province in the past. We refer to the benchmark years already used, namely 1975 and 1986, and define the instruments as dummy variables equal to 1 if the law school was located in the province in the past (instrument: (*ls75*) or (*ls86*)). On the basis of this definition, we expect a positive correlation on first-stage regressions of the number of lawyers on the instruments. The results of our estimates, reported in Table 7 (columns 2 and 3), confirm the causal effect of the number of lawyers on litigation.<sup>19</sup>

## 6 Conclusions

In this paper, we investigated the relationship between the number of lawyers and civil litigation across Italian provinces over the years 2000-2005. Our results provide evidence of a causal impact of the number of lawyers on litigation.

If we interpret the number of lawyers as a proxy for the intensity of competition in the market for legal services, our findings may be attributed to two different responses by lawyers to increasing competition: lawyers may reduce the prices of their services making more convenient for clients to bring cases before courts or they may increase their efforts in inducing demand for their services exploiting the informational advantage over clients. Unfortunately, we are unable to distinguish between the two possibilities. However, until 2006 a regime of minimum prices for lawyers was in place. This may have reduced the scope for lawyers to adjust prices in response to competition. At the same time, the remuneration system for lawyers based on the number and type of actions they undertake for their clients together with the uncertainty in the duration and the outcomes of the proceedings that characterizes the Italian system may have favored inducing demand behavior. A relevant policy implications of our results is that the revision of rules on lawyers fees aimed at making more predictable for clients the costs of legal services should be considered.

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<sup>18</sup>We checked the robustness of our results by also considering a reference year before 1975. We focused on 1968 when the number of provinces with a law school was lower by two compared to 1975. The results (available upon request) confirm the causal effect of the number of lawyers on litigation.

<sup>19</sup>Results hold using as reference year any year over the period 1875-1986.



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Table 1: Variable definition and sources

Variable	Definition
Litigation rate	Number of first-instance ordinary civil proceedings filed every year in the <i>Tribunali</i> per 100,000 inhabitants (source: Ministry of Justice and Istat)
Number of lawyers	Number of lawyers enrolled in the pension scheme managed by the lawyers professional association per 100,000 inhabitants (source: Cassa Nazionale Forense and Istat)
Gdp	Value added per capita by province and year in thousands of Euros (source: Istat)
Gdp growth	Yearly growth rate of provincial value added per capita (source: Istat)
Length	Time elapsed from filing to the decision of a case in the <i>Tribunali</i> (in days) by province, average over the years 1995-1998 (source: Istat)
Social capital	Number of non-profit organizations per 100,000 inhabitants in 1999 by province (source: Istat)
Urban	Ratio of the population living in the main city of the province to the population living outside it by province and year (source: Istat)
Crime	Number of crimes reported by the police per 100,000 inhabitants by province and year (source: Istat)
Province size	Dummy variable equal to 1 if the population in the province is above 350,000 inhabitants and equal to 0 otherwise (source: based on Istat)
Chief town	Dummy variable equal to 1 if the regional chief town is in the province and equal to 0 otherwise (source: based on Istat)
Instrumental variables	
Lsproximity75	Variable equal to 0 if there was a law school in the province in 1975 and equal to the distance (in km) between the province and the closest province with a law school elsewhere (source: based on Istat)
Ls75	Dummy variable equal to 1 if there was a law school in the province in 1975 and equal to 0 elsewhere (source: based on Istat)

Table 2: Descriptive statistics

Variable	Mean	Median	Std dev	I q	III q
Litigation rate	793.451	764.287	221.452	636.201	910.272
Lawyers	154.441	148.730	50.231	118.128	183.608
Gdp	19,305.76	19,894.10	5,036.55	14,515.40	23,228.94
Gdp growth	3.734	3.498	2.823	1.634	5.541
Urban	47.516	28.971	74.911	20.845	47.957
Crime	4,149.57	4,019.20	1,571.6	3,126.80	4,840.50
Length	1,283.56	1,249.12	239.8	1,124.88	1,456.85
Social capital	35.686	32.100	15.609	23.500	45.000
Chief town	0.194	0.000	0.396	0.000	0.000
Province size	0.550	1.000	0.498	0.000	1.000
Lsproximity75	61.214	60.000	52.605	0.000	95.000
Ls75	0.262	0.000	0.440	0.000	1.000
Observations	617				

Table 3: Correlation matrix

	Litigation rate	Lawyers	Gdp	Gdp growth	Urban	Crime	Length	Social capital	Chief town	Province size	Lsproximity75	Ls75
Litigation rate	1.000											
Lawyers	0.575 (0.000)	1.000										
Gdp	-0.194 (0.000)	-0.120 (-0.0029)	1.000									
Gdp growth	0.034 (0.4046)	-0.080 (0.0458)	-0.222 (0.000)	1.000								
Urban	0.216 (0.000)	0.203 (0.000)	0.178 (0.000)	0.071 (0.078)	1.000							
Crime	0.284 (0.000)	0.328 (0.000)	0.068 (0.0894)	0.047 (0.2421)	0.132 (0.001)	1.000						
Length	0.235 (0.000)	0.274 (0.000)	-0.489 (0.000)	0.059 (0.1444)	-0.212 (0.000)	-0.085 (0.0346)	1.000					
Social capital	0.062 (0.1238)	0.030 (0.4541)	0.486 (0.000)	-0.054 (0.1839)	0.453 (0.000)	0.119 (0.0029)	-0.338 (0.000)	1.000				
Chief town	0.094 (0.0201)	0.356 (0.000)	0.141 (0.000)	-0.012 (0.7705)	0.303 (0.000)	0.180 (0.000)	-0.101 (0.0119)	0.161 (0.000)	1.000			
Province size	-0.014 (0.7381)	0.264 (0.000)	0.099 (0.0141)	-0.060 (0.1367)	-0.122 (0.0023)	0.023 (0.5656)	0.002 (0.9666)	-0.150 (0.000)	0.2465 (0.000)	1.000		
Lsproximity75	-0.160 (0.000)	-0.261 (0.000)	-0.270 (0.000)	0.074 (0.0676)	-0.252 (0.000)	-0.226 (0.000)	0.200 (0.000)	-0.304 (0.000)	-0.1678 (0.000)	-0.1781 (0.000)	1.000	
Ls75	0.150 (0.000)	0.405 (0.000)	0.127 (0.0016)	-0.037 (0.3561)	0.259 (0.000)	0.207 (0.000)	-0.168 (0.000)	0.239 (0.000)	0.3771 (0.000)	0.3097 (0.000)	-0.6941 (0.000)	1.000

Pearson correlation coefficients. P-values in parentheses.

Table 4: Determinants of litigation

Dependent variable: Litigation rate	(1)	(2)	(3)
Lawyers	2.103*** (0.309)	1.795*** (0.304)	1.601*** (0.298)
Gdp	-0.003 (0.007)	-0.007 (0.008)	0.001 (0.005)
Gdp growth		-2.031 (3.009)	-2.638 (2.880)
Urban		0.370** (0.149)	0.732*** (0.193)
Crime		0.015* (0.008)	0.015** (0.007)
Length			0.101* (0.055)
Social capital			-4.943** (2.452)
Year control	yes	yes	yes
Region control	yes	yes	yes
Observations	617	617	617
$R^2$	0.469	0.487	0.519

Standard errors in parentheses. Standard errors are robust to heteroskedasticity and corrected for clustering on provinces. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Table 5: Ranking of litigation by judicial district

Judicial districts	1951-55	1956-60	1961-65	1966-70	1971-72	1990	2000
Turin	18	12	15	8	7	12	7
Milan	23	22	21	11	10	16	5
Brescia	7	5	8	3	5	5	2
Genoa	20	21	20	15	12	21	19
Trento	16	11	9	5	6	2	1
Bolzano							3
Venice	2	4	6	2	2	7	4
Trieste	21	7	5	4	3	10	6
Bologna	14	15	7	7	8	8	8
Florence	11	17	13	14	15	18	15
Perugia	4	8	4	10	16	15	9
Ancona	3	6	11	13	17	13	11
Rome	24	24	24	24	20	23	22
L'Aquila	9	3	3	6	9	14	18
Campobasso						17	12
Naples	22	23	23	23	22	22	29
Salerno						20	28
Bari	15	18	14	12	13	25	24
Lecce	17	14	16	16	18	19	20
Taranto							25
Potenza	6	10	12	19	19	6	23
Catanzaro	1	1	1	1	1	1	21
Reggio Calabria	12	16	18	22	21	26	26
Palermo	8	13	17	18	11	11	17
Messina	13	19	22	21	23	24	27
Caltanissetta	10	9	2	9	4	3	14
Catania	19	20	19	17	14	9	16
Cagliari	5	2	10	20	24	4	10
Sassari							13

Ranking of litigation rates in ascending order. Sources: based on Cecchi (1975), Ministry of Justice and Istat.

Table 6: Causality

Dependent variable: Litigation rate	(1)	(2)	(3)	(4)	(5)
Lawyers	2.305*** (0.680)	1.613* (0.886)	1.828** (0.820)	2.213** (0.930)	2.528** (1.150)
Gdp	-0.004 (0.007)	-0.007 (0.007)	0.001 (0.005)	0.005 (0.006)	0.004 (0.006)
Gdp growth		-2.102 (2.918)	-2.532 (2.880)	-2.893 (2.838)	-2.747 (2.904)
Urban		0.399* (0.206)	0.687*** (0.248)	0.756*** (0.210)	0.553* (0.284)
Crime		0.016 (0.010)	0.013 (0.009)	0.013 (0.008)	0.009 (0.011)
Length			0.091 (0.065)	0.060 (0.069)	0.068 (0.075)
Social capital			-4.867** (2.426)	-4.700* (2.478)	-5.249** (2.513)
Chief town				-95.460* (51.688)	
Province size					-64.993 (43.101)
Year control	yes	yes	yes	yes	yes
Region control	yes	yes	yes	yes	yes
Observations	617	617	617	617	617
$R^2$	0.468	0.486	0.517	0.53	0.515
First-stage regression					
Lsproximity75	-0.396*** (0.083)	-0.312*** (0.084)	-0.344*** (0.087)	-0.293*** (0.076)	-0.237*** (0.089)
F test of excluded instruments	22.980	13.960	15.720	14.950	7.090

Standard errors in parentheses. Standard errors are robust to heteroskedasticity and corrected for clustering on provinces. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$



Table 7: Robustness

Dependent variable: Litigation rate	(1)	(2)	(3)
Lawyers	2.279*** (0.813)	1.323** (0.515)	1.179** (0.529)
Gdp	0.001 (0.006)	0.002 (0.005)	0.002 (0.005)
Gdp growth	-2.321 (3.015)	-2.768 (2.729)	-2.835 (2.697)
Urban	0.598** (0.246)	0.786*** (0.207)	0.815*** (0.208)
Crime	0.01 (0.009)	0.017** (0.007)	0.018** (0.007)
Length	0.07 (0.066)	0.114* (0.059)	0.120** (0.060)
Social capital	-4.718* (2.486)	-5.034** (2.365)	-5.082** (2.355)
Observations	617	617	617
$R^2$	0.507	0.517	0.514
First-stage regression			
Lsproximity86	-0.363*** (0.103)		
Ls75		45.572*** (9.268)	
Ls86			43.591*** (8.994)
F test of excluded instruments	12.560	24.180	23.490

Standard errors in parentheses. Standard errors are robust to heteroskedasticity and corrected for clustering on provinces. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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