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Matthieu Belarouci

Corresponding author
Univ Rennes, CNRS, CREM – UMR6211,
F-35000 Rennes France
E-mail: matthieu.belarouci@univ-rennes.fr

Nicolas Vaillant

ETHICS – EA 7446,
Université Catholique de Lille
Maison des chercheurs, 14 boulevard Vauban, CS40109, 59106 Lille cedex, France
E-mail: nicolas.vaillant@univ-catholille.fr

François-Charles Wolff

LEMNA,
Université de Nantes,
BP 52231 Chemin de la Censive du Tertre, 44322 Nantes Cedex, France
E-mail: francois.wolff@univ-nantes.fr

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Highlights

- The 2010 reform of the French judicial map markedly reduced the number of first instance courts and increased distance effects for litigants
- We study changes in the number of referrals, conciliators and conciliations following the reform between treated and unaffected courts
- The caseload per conciliator has increased more significantly in treated courts characterized by higher distance effects than other courts
- The reform has had no effect on the number of conciliations once inputs are controlled for

Did the French reform of the judicial map affect conciliation activities?

Matthieu Belarouci*

Nicolas Vaillant**

François-Charles Wolff***

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Abstract: In France, the reform of the judicial map, initiated in mid-2007 and completed in 2010, led to a large reduction in the number of courts of first instance, from almost 500 to around 300. This led to an increase of about eight kilometers in the distance litigants should travel to courts in the treated jurisdictions. In this paper, we examine the impact of this reform on conciliation activity. We use a panel data set of courts covering the period 2003-2015 and consider a synthetic difference-in-differences strategy to compare changes in the number of referrals, conciliators, and conciliations between courts affected by the reform and those unaffected. We find that the number of conciliators decreased more significantly in treated courts than in control courts. Evidence is less clear for the number of referrals, showing a slightly higher increase in the courts where distance increased the most. Estimation of a production function shows that the reform had no effect on the number of conciliations once inputs are controlled for.

Keywords: conciliation, judicial reform, referrals, synthetic difference-in-differences

JEL: K15, K40, K41

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* Corresponding author. IGR/IAE Rennes – CREM UMR CNRS 6211, Université de Rennes, 35700 Rennes, France. E-mail: matthieu.belarouci@univ-rennes.fr

** ANTHROPO LAB – ETHICS EA 7446, Université Catholique de Lille, F-59000 Lille, France. E-mail: nicolas.vaillant@univ-catholille.fr

***LEMNA, Nantes Université and TEPP, BP 52231 Chemin de la Censive du Tertre, 44322 Nantes Cedex, France. E-mail: francois.wolff@univ-nantes.fr

1. Introduction

Like many European countries, France has been engaged in the reform of its judicial map. It was initiated in mid-2007 and completed in 2010. The main objective of this reform was to reduce both the delays and the costs of justice through the concentration of courts and the specialization of courts and judges. As a result, almost 30% of the courts in France have been closed (316 out of 1,113 between 2009 and 2011). The area of civil law, which mainly deals with disputes in everyday life, has been the most affected, with the closure of 37.4% of first instance courts (178 out of 476 between 2009 and 2010). This has led to an increase in the average distance of litigants from civil courts, with some jurisdictions more affected than others.

Contributions by policymakers and academics on the distance effects associated with such reforms provide evidence of reduced demand for trials and changes in economic decisions (Sénat, 2012; Chappe and Obindzinski, 2013, 2014; Espinosa et al., 2017, 2018), but do not consider how they affect the way cases are disposed of. However, the demand for justice includes both the demand for trials and the demand for settlements. From a theoretical perspective, the preference for settlements should increase with the costs of trials. The French reform of the judicial map in civil courts provides a unique setting to assess the extent to which the increase in distance effects affects litigants' preferences for settlement over trial. The focus on civil courts is relevant because it affects the whole society, including the vulnerable, who are particularly sensitive to distance effects.

This paper offers a partial view of the impact of the new judicial map on settlements in France. When a dispute arises between two parties, they can choose between mediation or conciliation, or else informal negotiations. Due to data constraints, this paper solely focuses on conciliation activities, which means that we are not able to consider the treatment of selection effects of cases going to this specific form of settlement. Nevertheless, conciliation is the main form of alternative dispute resolution (ADR) for disputes in everyday life in French civil first-instance courts. Its purpose is to facilitate and encourage negotiations instead of lengthy, costly and uncertain court proceedings. As a local justice mechanism ("*justice de proximité*"), conciliation is mainly conducted out of court, in offices distributed throughout the jurisdiction, which facilitates access for litigants. Conciliation may be initiated at the spontaneous request of the litigant (extra-judicial procedure) or imposed by the judge of the first instance court (judicial procedure). Conciliation is free of charge for the litigants and is carried out by non-professional volunteer judges, called conciliators. Due to the absence of fees, it is expected that the demand for conciliation after the reform would be higher than for other ADRs, as conciliation is specialized in civil law.

In our empirical analysis, we use several data sources. First, we consider a panel data set with 13 years of observations (from 2003 to 2015) and about 300 courts, where each court corresponds to a jurisdiction. We distinguish between two groups of courts. The control courts are those that were not affected by the reform, while the treated courts correspond to courts that were fictitiously merged before the reform and then affected by the reform. Second, we rely on unique data provided by the French Ministry of Justice with information on the number of conciliators, referrals, and conciliations achieved. Third, we use geographic and census data to calculate how the distance to courts for litigants changed after the reform. We employ a

difference-in-differences (hereafter, DID) strategy to assess the consequences of the reform of the judicial map. Specifically, we consider the new synthetic DID estimator proposed by Arkhangelsky et al. (2021) to have perfectly comparable groups of courts (treated and control) before the reform.

We proceed with the data as follows. First, we estimate how the inputs (number of conciliators, number of referrals) and outputs (number of successful conciliations) changed in the treated courts relative to the unaffected courts after the reform. We then examine the possibility of heterogeneous effects of the reform. Within the treated group, some jurisdictions were more affected than others in the sense that the average distance to the courts was much higher in these jurisdictions after the reform. Finally, because of the potential changes in both inputs and outputs, we focus on judicial productivity and estimate a production function that explains the number of conciliations achieved as a function of both the number of conciliators and the number of referrals. In all cases, we allow for the possibility that the announcement of the reform in mid-2007 may have changed behavior before the final configuration in 2010, with a transition period in 2008 and 2009.

We report several new results. First, we find that the number of conciliators declined in the group of treated courts after the reform, while there is no effect in the group of control courts. Interestingly, the decline is more pronounced in the subsample of jurisdictions where distance increased the most and where conciliators began to retire from their volunteer service shortly after the reform was announced. Second, we find no difference in the number of referrals when comparing the situation of the treated and control courts, but allowing for heterogeneous effects reveals that the number of referrals from litigants increased more in the subsample of courts most affected in terms of distance. Third, we do not obtain a significant result when we examine the number of conciliations achieved, even after controlling for potential changes in the composition of inputs. This suggests that conciliators did not increase their productivity in response to the increase in caseloads.

The remainder of our paper is organized as follows. Section 2 provides a description of the conciliation process in France. Section 3 presents the reform of the judicial map, while Section 4 discusses its expected impact on conciliation activities. Section 5 describes the data and compares how the numbers of conciliators, referrals and successful conciliations have evolved before and after the reform, using a DID strategy. Section 6 reports our various econometric estimates. Finally, Section 7 concludes.

2. Civil conciliation in France

Conciliation is an ADR mechanism. Its purpose is to remove disputes from the judicial process by facilitating and encouraging negotiations between litigants. Conciliation is carried out under the supervision of a voluntary auxiliary of justice, the conciliator. In civil law, conciliation is a form of local justice attached to the court of first instance. The competence of civil conciliation covers disputes in everyday life between people, neighborhood conflicts, consumer disputes, commercial and residential leases, and rural law (disputes with farmers over the use of land). Civil disputes relating to family or personal law matters, such as divorce or guardianship, are excluded from the scope of conciliation.

The territorial competence of the civil conciliation (*“ressort de conciliation”*) is a fraction of the jurisdiction of the court of first instance. This territorial jurisdiction depends on the domicile of at least one of the parties or on the location of the subject matter of the dispute (art. 4 of Decree n° 78-381 of March 1978, modified by art. 29 of Decree 2019-913 of August 30, 2019). Consequently, the parties are bound to settle their dispute in the jurisdiction of the court of first instance, within which they may choose their conciliator in the plaintiff's or defendant's jurisdictions, as courts of first instance's jurisdictions are subdivided into several conciliator's jurisdictions. Abidance with the territorial jurisdiction of the court of first instance court is mandatory for the conciliation agreement to be compliant (Buchser-Martin and Manteaux, 2018; DSJ, 2021). With regard to the characteristics of conciliation cases, the defendant and the plaintiff generally belong to the same jurisdiction.¹

There are two different types of conciliation in French courts: extra-judicial conciliation and judicial conciliation. The first type (extra-judicial) is the most widespread form and accounts for more than 90% of the cases handled by conciliators. It is initiated by the litigant, who contacts either the clerk's office of the court of first instance or the conciliator. The parties are then invited by the conciliator to attend a conciliation hearing at which they explain the subject of their dispute and present their claims. Although the conciliator organizes the discussions and may make proposals to resolve the dispute, he or she cannot invoke the rules of law to settle the dispute. If an agreement is reached, the conciliator may prepare a statement of the agreement for approval by the district judge. This statement is enforceable in the same manner as a court decision, subject to the consent of both parties. If conciliation fails, the parties may litigate their case by filing a complaint at the court's registry. Because conciliation is confidential, no written record of the process is kept or sent to the judge if the case is brought into the judicial circuit.

The second type of conciliation is called judicial conciliation. The main difference from extra-judicial conciliation is that this process is initiated by the district judge, who nominates the conciliator in charge of the case. The judge requires both parties to contact the conciliator to negotiate a resolution, either before or during the court hearing. Judicial conciliation hearings may be held in the court or in offices located in the conciliation jurisdiction (*“ressort de conciliation”*). If successful, the agreement is ratified by the judge and becomes enforceable. If it fails, the judge receives the litigants in a hearing and issues a judgment, which is served on the parties within two months. Compared to extra-judicial conciliation, judicial conciliation is mainly related to residential tenancy and consumer disputes, accounting for 27.91% and 26.83% of the caseload since 2014, according to the SDSE data. The resolution of these disputes usually requires a formal agreement ratified by the judge, which is mandatory if one of the parties waives a right (art. 9 of Decree n° 78-381 of March 1978). There are no specific requirements for conciliators, such as experience or qualifications, to handle judicial conciliation cases (Buchser-Martin and Manteaux, 2018; DSJ, 2021).² Despite the differences between the two procedures, judicial conciliation accounts for 10% of the caseload of conciliators (Brunin and Pirot, 2017).

¹ About 60% of disputes are related to neighborhood disturbances, conflicts between people, real estate and condominiums (Brunin and Pirot, 2017).

² In the Sous-Direction des Statistiques et des Etudes (SDSE) data, we do not observe any specialization of conciliators on cases or areas of the law.

For the litigant, the main advantage of conciliation is that it is free and “close to the citizen.” As a form of local justice, conciliation takes place mainly out of court. It takes place throughout the jurisdiction of the court of first instance, in places such as judicial and legal centers, town halls, or association meeting rooms, where a specific conciliator is assigned. Conciliation can even take place in the homes of the parties. It is a quick alternative to legal proceedings, as the process rarely exceeds three months, while the average duration of cases in first instance courts is 5.5 months (*Inspection Générale de la Justice*, 2015). Regardless of the type of conciliation, the parties may be assisted but not represented by a lawyer at the hearing. In addition, conciliation is held in places that are geographically closer to the litigant’s home than the courts.

The tasks of conciliators result from the delegation of the conciliation role of the district judge (Decree n°78-381 of March 20, 1978). The conciliators are appointed by the first judge of the Court of Appeal on the proposal of the first instance district judge. Their term of office is one year for the first appointment and two years for each renewal.³ The conciliators are volunteers: they are not remunerated but are reimbursed for expenses incurred during their duties. They are bound by the principles of independence, impartiality, probity, equity, competence, confidentiality, voluntariness and diligence. Although they are not legal professionals, they are required to have expertise in the field of law and receive a short training course at the National School of the Judiciary (*Ecole Nationale de la Magistrature*). Because conciliators are often the first point of contact for litigants due to their geographical proximity, they also play a role in advising and directing litigants to the appropriate jurisdictions. They are permanently assigned to a particular territory and benefit from reputational effects. Unlike conciliation in other areas of law, such as corporate law or employment law, there is no specialization of conciliators in civil conciliation.

At the end of 2008, there were 1,717 conciliators in France dealing with 11,638 referrals for judicial conciliation and 102,191 referrals for extra-judicial conciliation, with resolution rates of 58.8% and 58.1%, according to the data from the Sub-Directory for Statistics and Studies of the French Ministry of Justice, “*Sous-Direction de la Statistique et des Etudes*” (SDSE, hereafter). At the end of 2011, the number of conciliators decreased to 1,649 (-4.0%) for a caseload of 12,153 (+4.4%) judicial conciliations and 113,223 (+10.8%) extra-judicial conciliations, with resolution rates of 53.8% and 56.1%. Regarding the composition of the conciliation caseload, 23% of cases were consumption disputes, 21% were neighborhood disturbances, 18% were real estate disputes between neighbors, and 8% were real estate disputes between individuals (Brunin and Pirot, 2015). These figures remained stable over time.

Another form of ADR is mediation. Both conciliation and mediation are structured negotiation processes to find a peaceful solution in the shadow of the law, but there are significant differences. A first difference is that the conciliator proposes solutions to the disputants in order to reach an agreement, while the mediator is only entitled to accompany the parties in negotiations who find solutions on their own. The mediator is not allowed to make proposals to the parties. According to the *Inspection Générale de la Justice* (2015), this peculiarity explains the greatest effectiveness of conciliation. A second difference between civil conciliation and civil mediation is the area of law covered. Mediation covers broader areas of

³ Since 2016, the renewal is for three years.

law, such as corporate law, employment law or disputes related to family law (inheritance or divorce), which do not fall within the competence of the conciliator. Finally, civil mediation is a private instrument that involves fees depending on the number of hearings, whereas conciliation is free of direct costs for the litigants.

While, in judicial proceedings, the ADR is imposed by the judge, in extra-judicial proceedings, the parties can choose between conciliation and mediation. Several factors may influence this choice. First, since the areas of law covered by civil mediation are broader than those covered by conciliation, the choice of ADR in extra-judicial settlements depends primarily on the nature of the case. Second, the cost of civil mediation is likely to increase litigants' preference for conciliation. Third, mediators and conciliators benefit from reputational effects that influence the choice of ADR in extra-judicial procedures. In practice, clerks of court may also steer litigants to a preferred type of ADR in extra-judicial procedures. Finally, the choice of ADR depends on the availability of conciliators in the jurisdiction.

Unfortunately, there is little data available on civil mediation to document its relative importance compared to conciliation. According to CEPEJ data, 5,694 judicial mediations took place in France in 2012, including 2,954 civil and commercial cases, which are partly within the competence of conciliation, and 2,740 family cases, which are not covered by conciliation.⁴ However, no information is available on the caseload of extra-judicial mediations. In 2014, 2,450 mediators were registered in France. In comparison, data from the SDSE show that judicial conciliation covered 7,241 cases in 2012, and that 1,656 conciliators were active in 2014. Due to data limitations, we will focus exclusively on conciliation and are therefore unable to assess the impact of the judicial reform on the entire formal settlement stage.

3. The reform of the French judicial map

The reform of the judicial map in civil law was initiated in France in June 2007 and completed on January 1, 2011.⁵ It was implemented by a series of decrees, the most important of which was Decree n° 2008-1110 of October 30, 2008.⁶ This decree modified the headquarters and jurisdictions of the civil courts of first and higher instances dealing with disputes in everyday life and stakes involving more than €10,000, respectively. The main objective of the reform was to rationalize the location of courts by concentrating them in jurisdictions of sufficient size. The reform was expected to “reinforce the quality of justice” and “ensure the good administration of justice” by reducing the isolation of judges and promoting their specialization (Sénat, 2012, 2013). The reform resulted in the concentration of resources and the closure of locations considered too small, using criteria based mainly on activity indicators.

In civil law, the threshold of activity below which the civil higher courts were closed was set at 1,550 new civil cases per year or 2,500 prosecutable cases for the courts. For the civil courts

⁴ See the statistic portal of CEPEJ:

<https://public.tableau.com/app/profile/cepej/viz/QuantitativeDataEN/Tables?publish=yes>

⁵ Similar reforms in European countries have been urged by the Vilnius Declaration (2011): Portugal in 2008 (Gomes, 2007; Van Dijk and Hauratius, 2013; Teixeira et al., 2019; Dias and Gomes, 2018; Branco, 2019), Croatia in 2010, Italy in 2011, and Belgium (Ficet, 2011; Mak, 2008) and the Netherlands in 2013 (Mak, 2008; Van Dijk and Hauratius, 2013), Germany (Mak, 2008).

⁶ For details, see <https://www.legifrance.gouv.fr/loda/id/JORFTEXT000019708436/>

of first instance, the threshold was 1,230 civil cases per year excluding summary proceedings. As a result, approximately one third of the civil courts of first instance were absorbed and closed: 178 of the 476 civil courts of first instance were eliminated.⁷ The reorganization was completed on January 1, 201, with the exception of 27 courts that were closed in the second half of 2009. Only 14 courts were created, including seven magistrate and local courts. These courts are not included in our analysis because they did not exist prior to the reform.⁸ Apart from these exceptions, the principles of concentration and specialization of jurisdictions have prevailed over the principle of proximity between the litigant and the judge, "*which alone cannot justify the maintenance of jurisdictions with low activity*" (Speech of the Minister of Justice, June 2007).⁹ Thus, the choice made by the French Minister of Justice relied on the reduction of delays and costs achieved through expected acceleration of proceedings of the new extended courts, at the expense of increased distance between litigants and courts.

Despite the transfer of cases, the resources of the targeted courts were only partially transferred to the acquiring courts. As a result of the closure of the courts, the average number of first instance judges decreased by -7.3% between 2008 and 2012, while the number of judicial assistants decreased by -9.1% (-42 first instance judges, -253 judicial assistants). Of the 863 employees of the first instance civil courts closed in 2007, 613 were transferred to the acquiring courts, 125 were dismissed and 125 were assigned to other jurisdictions (*Cour des Comptes*, 2015). Among the 31 appeal court jurisdictions ("*ressorts de cour d'appel*"), only the court of Aix-en-Provence increased its resources by +3.6% of judges (but -4% of judicial assistants). The most affected courts were Limoges (-25% of judges, -13% of judicial assistants) and Bourges (-23.1% of judges, -13.8% of judicial assistants). Eight courts did not suffer any loss of judges's positions, but all recorded a reduction in the number of judicial assistants. Although there is no data on the turnover of first instance judges in the appeal court jurisdictions, the reform has clearly led to a reduction in the resources allocated to civil courts of first instance.

The reform's greater focus on civil courts of first instance has increased both the geographical and legal distances for litigants. This is important because these courts are, by definition, more sensitive to the principle of proximity, as their jurisdiction is more often concerned with disputes in everyday life and vulnerable citizens. For each jurisdiction, we calculate the distance to the court based on the geographic centers of the cities within the jurisdiction. To account for the relative size of the cities involved, we weight the distance by the population of each city.¹⁰ The results are shown in Figure 1. Before the reform, the average distance to court per jurisdiction was 14.0 kilometers, with a standard deviation of 6.8 kilometers. This distance was significantly higher for the treated courts than for the control courts: 16.1 kilometers versus 12.1 kilometers. As expected, the average distance did not change for courts

⁷ In other areas of law, the reform closed 85 out of the 86 detached clerks' offices and 316 courts, including 21 out of the 181 civil high courts, 62 out of the 271 labor courts, 55 out of the 185 commercial courts, in addition to the 178 first instance courts discussed above.

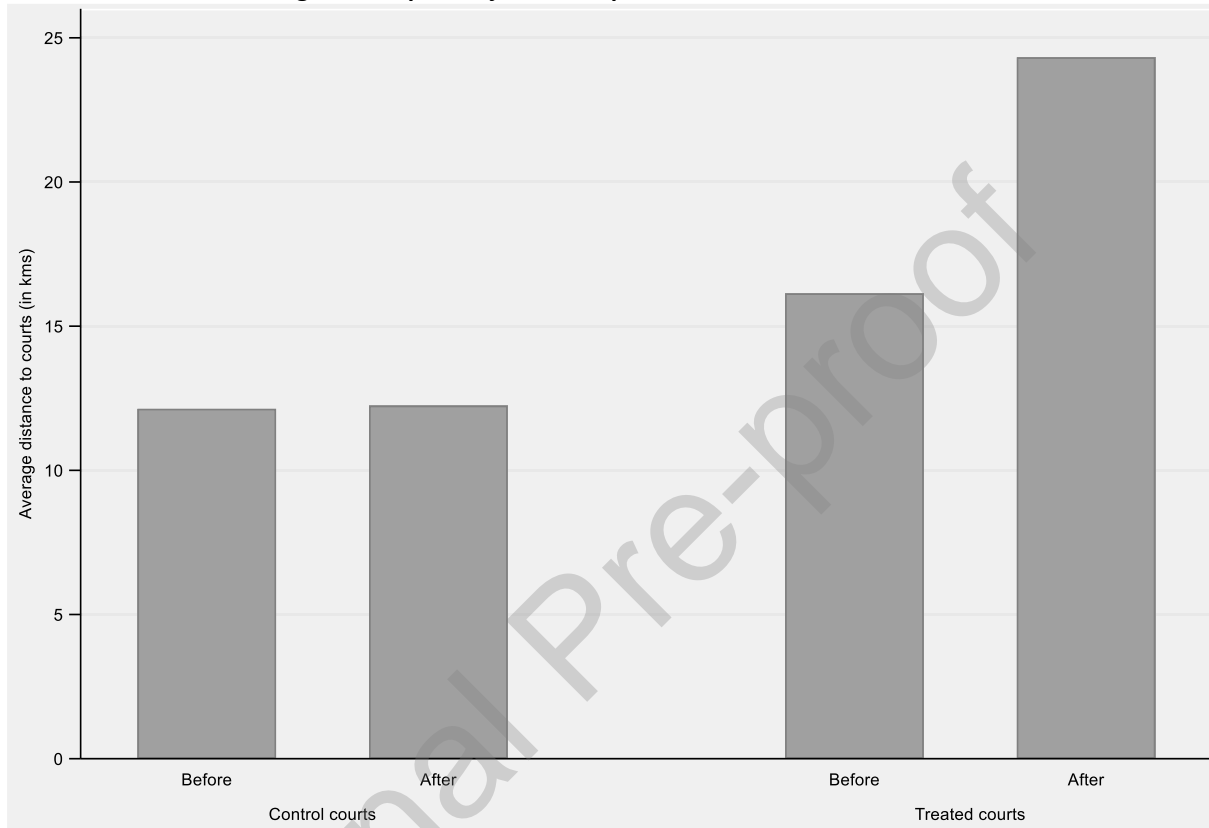
⁸ In addition, 15 first instance courts whose rate of activity was twice as low as the hurdle rate (615 new cases per year) were maintained in order to limit the creation of legal deserts (Sénat, 2012).

⁹ See <http://www.presse.justice.gouv.fr/discours-10093/archives-des-discours-de-2007-10239/reunion-du-comite-consultatif-de-la-carte-judiciaire-12793.html>

¹⁰ Population data are from the 2008 INSEE census at the city level. Distances between cities and courts are calculated using GPS coordinates of the 2008 and 2012 city maps published by IGN (Lambert 93 projections). We take into account the mergers and divisions of cities between 2008 and 2012.

not affected by the reform: 12.2 kilometers after the reform, with a non-significant before and after difference ($t=+0.91$). Conversely, for the treated courts, the distance increased significantly after the reform, from 16.1 kilometers to 24.3 kilometers ($t=+11.29$). While the difference may seem limited (+8.2 kilometers), the increase is very large when expressed in relative terms, with the average distance increasing by +50.9%.

Figure 1. Impact of judicial map reform on distance to courts



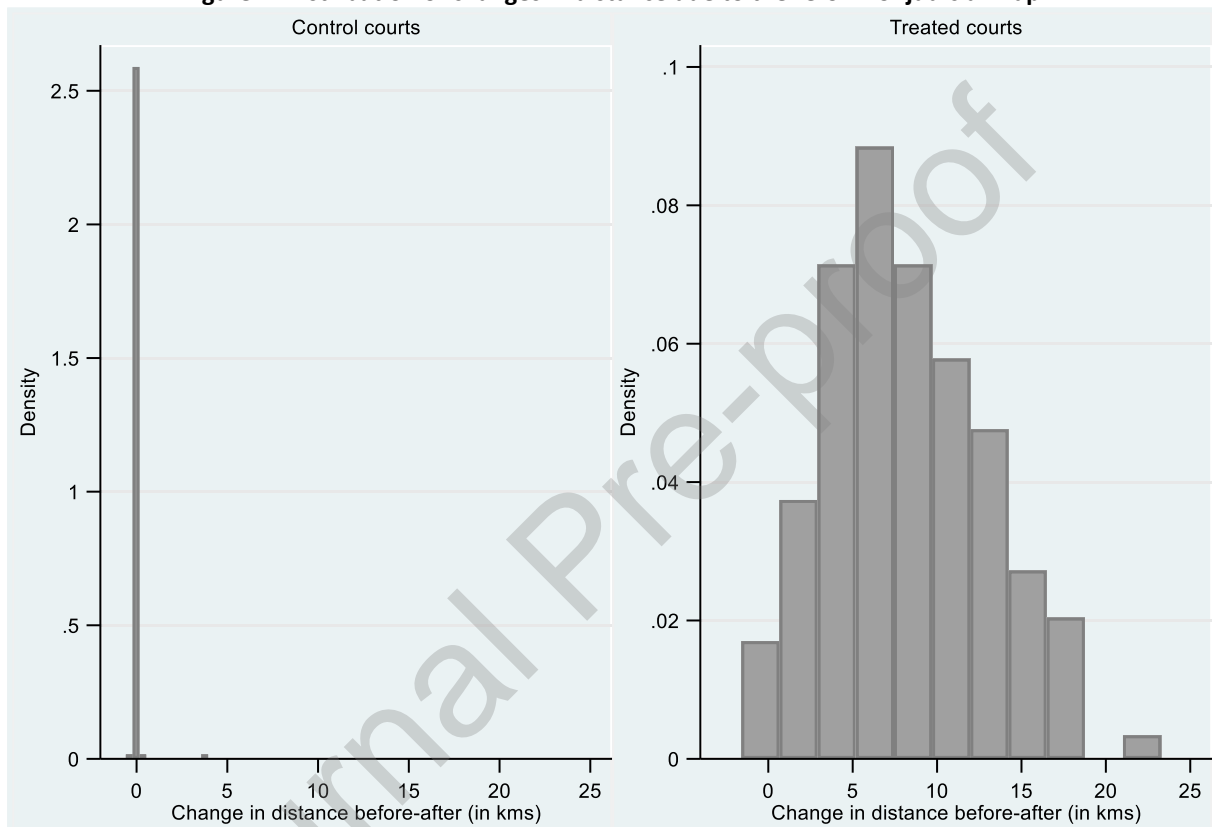
Source: authors' calculations, data from INSEE census and IGN.

Another finding is that the average increase in the distance to courts hides some considerable heterogeneity across the French territory. For example, *L'Union syndicale des magistrats* reported that some residents of Corse or Haute-Corrèze sometimes had to travel up to four hours to attend hearings in first instance courts after the reform. In Haute-Garonne, the districts of Luchon, Montréjeau and Barbazan were 130 to 150 kilometers away from Toulouse, the new court of first instance. The emergence of legal deserts in some districts was also reported in Bretagne and Auvergne, where there was no legal presence within 100 kilometers of courts (Sénat, 2012). Figure 2 shows the distribution of changes in distance as a result of the reform. For the treated courts, distances increased by at least 7.5 kilometers for half of them, by at least 10 kilometers for a third, and by at least 12.6 kilometers for a fifth. This heterogeneity in access to justice, especially for vulnerable populations, remains a concern for French policymakers, as highlighted by Deffains and Espinosa (2022).

To compensate for the closure of courts, 149 offices ("*Maison de la Justice et du Droit et Points d'accès au droit*") were created, where conciliators, advisors and sometimes judges were initially to be appointed to maintain a residual supply of justice for disputes in everyday life (CEPEJ, 2012; Sénat, 2012). However, the implementation of this local access to justice has relied on the organization, funding and supply of non-professional judicial staff provided by

the city halls, leading to difficult coordination by the judiciary. A report by the Sénat (2012) also regrets that the initial provision relating to part-time appointments of judges for disputes in everyday life during public hearings (*“audiences foraines”*) has not been implemented. These offices are therefore only a means of access to the law or access to justice through information (*“Maison de la Justice et du Droit and Points d'accès au droit”*), or through the non-judicial handling of disputes (MJD). Under no circumstances are these structures intended to replace judges (Sénat, 2012 p. 49).

Figure 2. Distribution of changes in distance due to the reform of judicial map



Source: authors' calculations, data from INSEE census and IGN.

In practice, the work of these offices is carried out by auxiliaries of justice (lawyers, clerks, conciliators or mediators). In the end, it seems that the consequence of the reform in closed courts means more distance from judges than conciliators/mediators. Moreover, the introduction of the so-called “virtual proximity justice” through videoconferencing (law n° 2007-1787 of December 20, 2007) has not reduced this geographical constraint, both because of the difficulties of digital access and proficiency met by vulnerable litigants and of the lack of administrative offices supported by city halls and not the judiciary. For example, in 2012, only 15 terminals were available for such videoconferencing on the entire French territory. In 2017, the lack of resources and efficiency for digitalization triggered the “Digital Transformation Plan of Justice Program 2018-2022” (*“Plan de transformation numérique”*, PTN). The *Cour des comptes* (2022) and Deffains et al. (2022) report that these services are still insufficient today.¹¹

¹¹ <https://www.ccomptes.fr/fr/publications/point-detape-du-plan-de-transformation-numerique-du-ministere-de-la-justice>

The consequence of the increase in distance effects is a deterioration in the quality of justice and in the working and living conditions of the judicial staff members who are further away from their workplace (Sénat, 2012; 2008). First, this deterioration in the quality of justice is reflected in the length of civil cases, with the average duration of litigation increasing from 5.7 to 6.3 months. Moreover, the proportion of courts with an average case duration of more than 5.5 months increased from 22% in 2008 to 43% in 2010 (the year following the closure of many courts) and 35% in 2011 (Sénat, 2012; *Cour des comptes*, 2015). Second, a further decline in the demand for justice, sometimes as much as -20%, was observed in the closed jurisdictions (Sénat, 2012, p.105). This reflects the difficulties litigants face in accessing justice, and even their reluctance to refer their matters to courts. With regard to the objective of reducing public expenditure, the reform has saved 9.1 million euros per year, but its cost was estimated at 413 million euros (*Cour des comptes*, 2015; Sénat, 2013).

4. Expected effects of the judicial map reform

ADRs, and conciliations in particular, are not explicitly mentioned in Decree 2008-1110 of October 30, 2008, nor are they documented in the official reports on the activity of the courts published by the French Ministry of Justice.¹² Nevertheless, reduced access to courts may affect the way in which cases are disposed in favor of ADR. According to Landes (1971), Posner (1973) or Gould (1973), the cost of litigation increases both demand for settlement and settlement rate. Considering distance effects, Christensen and Szmer (2012) provide evidence that the geographic size of a jurisdiction increases delays in case processing, which in turn are known to be a determinant of the demand for settlement (Landes, 1971; Posner, 1973, 1996; Gould, 1973; Grajzl and Zajc 2017; Bielen et al., 2017).

In the case of the French judicial map reform, both distance effects and settlement delays increased in the treated courts. Few papers have examined the consequences of the increase in distance effects associated with the French reform. Chappe and Obidzinski (2014) model how this reform changed the demand for litigation, and how the higher distance effects of litigation reduced motor vehicle accidents. Espinosa et al. (2017; 2018) examine the negative impact of the reform on the operation of labor courts and the labor market. They provide evidence that the elimination of 20% of the labor courts, which resulted in a +25.7 km increase in distances in these areas, led to a decrease in demand for litigation in the closed jurisdictions and an increase in case duration. These areas also suffered from lower growth rates in job creation, job destruction, and firm creation (Espinosa et al., 2018). A similar pattern is observed in the Portuguese reform of the judicial map, which resulted in greater distances for litigants, especially for vulnerable citizens, and protracted procedures (Dias and Gomes, 2018). However, no paper has investigated whether the number of cases filed in civil courts has evolved differently in treated and unaffected courts, nor how this has impacted the way cases are disposed.

The increase in the cost of access to justice is taken into account by the judges and parties when choosing their preferred mode of disposition (Dimitrova-Grajzl et al., 2014). The reduction in court resources for a given demand for justice may increase the proportion of cases that are settled rather than litigated (Landes, 1971 ; Posner 1973 ; Gould 1973; Murrell

¹² The portal that releases statistics about court activity is only concerned with the outcomes of trials and not with settlements provided by conciliators or mediators.

2001; Dimitrova-Grajzl et al., 2014), especially if access to ADR has been maintained in the jurisdictions affected by the closures (Sénat, 2012). The expected consequence of the increase in distance effects may be an increase in the demand for conciliation and/or mediation. Given that mediation covers a broader range of legal areas than conciliation, especially in family disputes related to divorce, parties did not necessarily have a choice in their type of extra-judicial procedure, given the nature of their case. For disputes in everyday life, given the number of hearings, litigants are likely to prefer free conciliation to paid mediation.

Both the higher distance effects and increased court delays may deter litigants from turning to judges and ADR alike (Vereeck and Mühl, 2000). In France, the increase in the distance to court was associated with a 5.8 percent decrease in demand in French labor courts (Espinosa et al., 2017).¹³ As suggested in Fournier and Zuelke (1996), Kessler (1996), Christensen and Szmer (2012), Dimitrova-Grajzl et al. (2014) and Grajzl and Zajc (2017), the potential increase in delay to access overburdened judges should nonetheless encourage litigants to resort to extra-judicial conciliation (and/or mediation), even in jurisdictions with small increases in distance to courts. The reform may increase the demand for conciliation in the closed courts, as it appears to be less costly for litigants in terms of distance effects (Buscaglia and Ulen, 1997; Deyneli, 2012; Dimitrova-Grajzl et al., 2014; Espinosa et al., 2017, 2018). The expected increase in demand is likely to differ depending on the type of referrals. In the case of direct referrals (extra-judicial conciliation, 90% of conciliators' caseload), the parties cannot choose the court of jurisdiction, except in specific situations. This may lead to an increase in demand, but it may also be that there is little demand sensitivity, due to local conditions (Grajzl and Siwal, 2020).

Concerning referrals delegated by judges (judicial conciliation), the reform may have reduced the need for judges to delegate cases to conciliators because of the increased specialization of judges in some courts.¹⁴ At the same time, judges may have faced a higher caseload immediately after the reform, leading to an increase in the need for delegation. In this situation, an increase in the caseload of judges may also have had an indirect effect on extra-judicial conciliation (Dimitrova-Grajzl et al., 2014). The spread of judges, judicial assistants, and caseloads before and after the reform supports this interpretation. Contrary to the *Cour des Comptes* (2015), the Sénat (2012) argues in favour of an increase in the demand for both extra-judicial and judicial types of conciliation, noting that the reform and the early post-reform period were characterized by excessive delays as the district judges disposed the cases themselves. As a result, judges and parties alike may have seen conciliation as a substitute for litigation ; temporarily reducing the burden on courts.

On the supply side, the reform should have affected the work decisions of conciliators. Like litigants, some conciliators may have been confronted with an increase in the distance to the courts where they perform all or parts of their tasks; their activity being coordinated by the district judges and the coordinating magistrates. As emphasized above, conciliators are unpaid auxiliaries of justice. In the absence of real compensation, the increase in distance effects may

¹³ Data published by the SDSE since 2014 show that 30.76% of extra-judicial cases are generally dropped without an observed case category effect, but this cannot be examined due to data limitations in the sample period.

¹⁴ During the reform process, some courts have chosen to specialize some competences related to tutorship and personal excessive debts in order to increase their productivity while others have not specialized judges to maintain the judges' global view of precariousness litigation (see Sénat, 2012 p.34 and p.71).

discourage conciliators from maintaining their position, especially if an increase in their workload is expected at the same time (Bermant et al., 1994; Christensen and Szmer, 2012; Grajzl and Siwal 2020; Banasik et al., 2022). Nevertheless, the number of conciliators is potentially endogenous in the sense that a structural increase in referrals should lead to hiring additional conciliators to handle the caseload. In this case, the reform may have a neutral or positive effect on the number of conciliators at the court level.

A more difficult issue is the expected change in the number of successful conciliations achieved by conciliators. The increase in demand for settlement may have contradictory effects (Grajzl and Siwal, 2020). On the one hand, assuming that the composition of the cases does not change (and that the skills of conciliators are unchanged), more disputes should lead to higher resolution rates for conciliations, and conciliators may be pressured into increasing their productivity to cope with the increased caseload.¹⁵ On the other hand, the congestion resulting from increased demand should lead to less availability and ability to settle within reasonable time. Because conciliators have no career incentives, their output may be inelastic to demand regardless of congestion.

Worse, the increase in the size of jurisdictions, which reflects the demand for judicial services, negatively affects the availability of conciliators and thus the productivity of courts (Landermann, 1999; Cohen, 2002; Lindquist, 2007; Eisenberg and Lanvers, 2009; Christensen and Szmer, 2012). The increase in settlement time due to the greater distance that conciliators must travel to hear oral arguments from litigants (Christensen and Szmer, 2012) and their presence in multiple places is likely to reduce their efficiency (Grajzl and Siwal, 2020). These effects are likely to be exacerbated if there is a wave of retirements of experienced conciliators in response to the reform. Finally, if distance effects increase the demand for conciliation, the composition and complexity of caseloads may also change, affecting the productivity of conciliators in an unknown way.

5. Data and descriptive statistics

We examine the impact of the reform of the judicial map on conciliation activity using data provided by the SDSE through a signed agreement. The data cover the period from 2003 to 2015, including seven years before the reform (2003-2009) and six years after the reform (2010-2015). While the new configuration of courts came into effect in January 2010, the announcement of the reform in mid-2007 seems to have resulted in some changes from as early as 2008, the year the reform started, so that we will consider a transition period covering 2008 and 2009.¹⁶ For each year, the SDSE records the conciliation activity at the level of the different courts. Thus, the unit of observation in the database is the geographical area corresponding to the court's jurisdiction. As conciliation activities remain confidential, there is no available detailed record of individual successful conciliations.

For each year, the SDSE records conciliation activity at the level of the different civil courts of first instance. The production of judicial conciliations is based on two different inputs. The first

¹⁵ Unfortunately, data on the composition of the caseload are not available for the selected time period.

¹⁶ See the interview with French Minister Justice Rachida Dati (June 22, 2007): https://www.lefigaro.fr/actualite/2007/06/22/01001-20070622ARTFIG90331-dati_la_carte_judiciaire_doit_etre_reformee.php

is the number of conciliators \mathcal{N} . The second is the number of referrals, which is the measure of the conciliators' workload. There are two types of referrals. On the one hand, there are direct referrals \mathcal{R}^d , which come from the litigants themselves. On the other hand, there are referrals from judges \mathcal{R}^j , who can transfer part of their activity to the conciliators. As far as output is concerned, we distinguish between the number of successful conciliations \mathcal{C}^d resulting from direct referrals and the number of successful conciliations \mathcal{C}^j resulting from referrals transmitted by judges. The production function of the judiciary \mathcal{F} can be summarized as $\mathcal{C} = \mathcal{F}(\mathcal{N}, \mathcal{R})$ with $\mathcal{F}'_{\mathcal{N}} > 0$ and $\mathcal{F}'_{\mathcal{R}} > 0$.

To assess the impact of the reform, we consider a fixed perimeter for each court. Let i be a district court with $i \in \{1, \dots, I\}$. We distinguish two types of district courts. The first group, characterized by $\mathcal{g} = 0$, corresponds to the subsample of district courts not affected by the reform of the judicial map: these courts have kept the same geographical perimeter throughout the period. The second group, characterized by $\mathcal{g} = 1$, corresponds to the subsample of district courts whose perimeter was modified by the reform of the judicial map. Consider two courts, i_1 and i_2 , which belonged to the group $\mathcal{g} = 1$ before the reform. With the reform, they merged on January 1, 2010 to form the new court i_{12} . We use this post-reform perimeter to characterize the corresponding fictitious pre-reform court i_{12} in terms of both inputs and outputs. For example, the number of conciliators for this fictitious court i_{12} before the reform is given by the sum $\mathcal{N}_{12} = \mathcal{N}_1 + \mathcal{N}_2$, where \mathcal{N}_1 and \mathcal{N}_2 are the number of conciliators in i_1 and i_2 , respectively, before the reform.

Considering the entire period 2003-2015, the sample contains 3,743 observations. It is an unbalanced panel, and the number of courts per year for which the information is available ranges from 252 (in 2013) to 299 (in 2007). In this sample, three courts were affected by a merging process that took place in 2009, 2011, and 2015, respectively.¹⁷ We decide to remove these three courts and consider only the courts from group $\mathcal{g} = 1$ whose perimeter has changed on January 1, 2010. In total, the selected sample includes 3,716 observations, corresponding to 304 different courts. Information is available for 13 consecutive years for a subsample of 190 courts and for 12 years for 65 courts.

Table 1 shows the average level of inputs per court for three different periods: before the reform (2003-2007), during the transition period (2008-2009), and after the reform (2010-2015). Before the reform, the average number of conciliators in the treated courts was almost twice as high as in the control courts (8.6 instead of 4.8). The explanation for this is that the treated courts are, by design, an aggregation of courts. As a result, they are much larger in size. After the reform, the number of conciliators is still much higher in the treated courts, but the gap has narrowed. The average number of conciliators decreased by 0.2 after the reform for control courts, while it decreased by 1.3 for treated courts. At a finer level, Figure 3 shows that the number of conciliators began to decline as early as 2008. This suggests that the announcement of the reform in mid-2007 may have influenced the work decisions of conciliators. In 2008, conciliators knew that they would be changing their geographical scope of intervention, with more distance to cover in the new larger jurisdictions. Those who were due to renew their mandate in 2008 may have preferred not to do so.

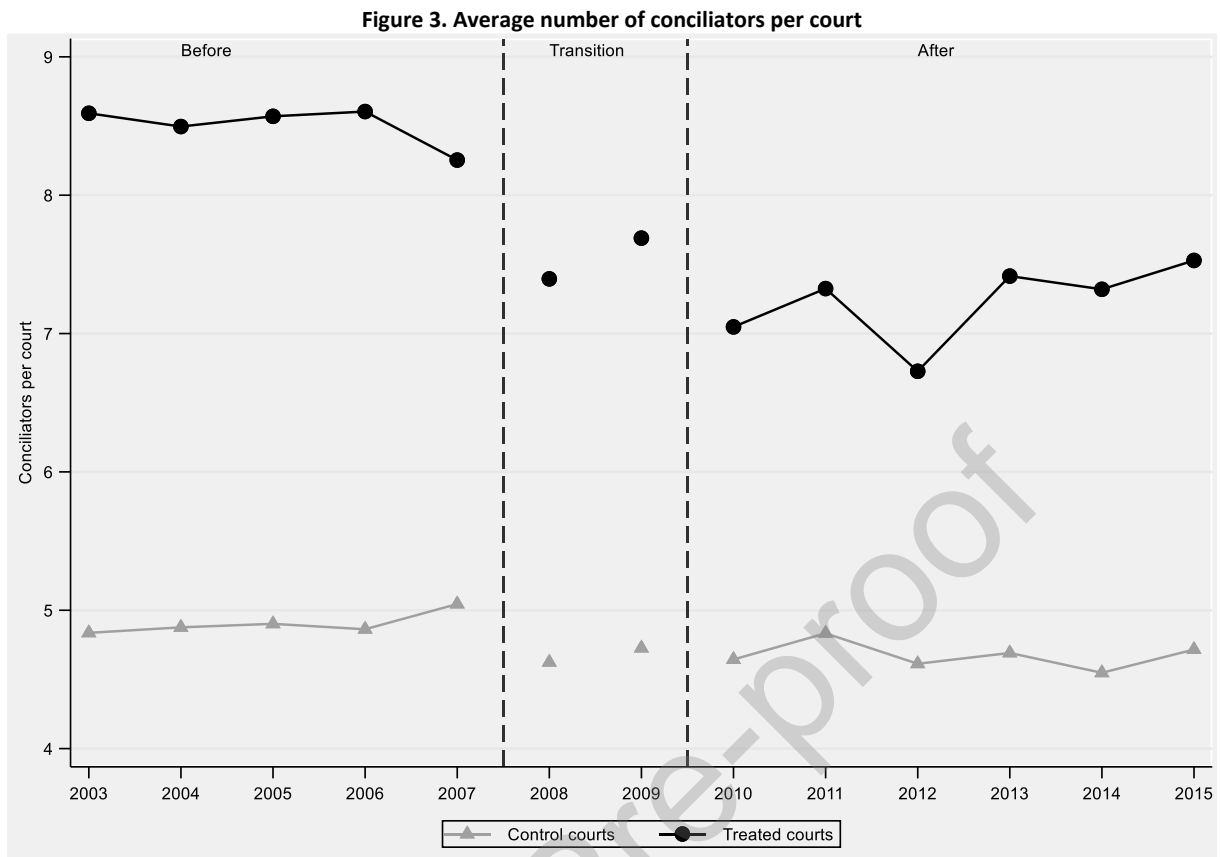
¹⁷ The corresponding courts are Manosque (2009), Mamoudzou (2011) and Sucy en Brie (2015).

Table 1. Descriptive statistics

| Variables | | All | Before: 2003-2007 | Transition: 2008-2009 | After: 2010-2015 | Difference: after - before | Difference in differences |
|---|---------------------|-------|----------------------|--------------------------|---------------------|----------------------------------|---------------------------------|
| Conciliators | All | 6.1 | 6.4 | 5.9 | 5.8 | -0.7 | |
| | Control ($g = 0$) | 4.6 | 4.8 | 4.5 | 4.5 | -0.2 | |
| | Treated ($g = 1$) | 7.8 | 8.6 | 7.6 | 7.3 | -1.3 | -1.1 |
| All referrals | All | 412.2 | 412.6 | 399.0 | 416.4 | 3.9 | |
| | Control ($g = 0$) | 349.8 | 353.7 | 352.3 | 345.5 | -8.3 | |
| | Treated ($g = 1$) | 490.5 | 487.9 | 456.5 | 504.6 | 16.7 | 25.0 |
| Referrals from litigants | All | 374.5 | 382.0 | 361.1 | 372.5 | -9.5 | |
| | Control ($g = 0$) | 316.2 | 326.3 | 316.1 | 307.2 | -19.2 | |
| | Treated ($g = 1$) | 447.6 | 453.2 | 416.6 | 453.7 | 0.5 | 19.7 |
| Referrals from judges | All | 37.7 | 30.6 | 37.9 | 43.9 | 13.4 | |
| | Control ($g = 0$) | 33.6 | 27.4 | 36.2 | 38.3 | 10.9 | |
| | Treated ($g = 1$) | 42.8 | 34.7 | 39.9 | 50.9 | 16.3 | 5.4 |
| All referrals per conciliator | All | 73.0 | 71.4 | 73.4 | 74.3 | 2.9 | |
| | Control ($g = 0$) | 80.9 | 82.7 | 84.8 | 77.9 | -4.8 | |
| | Treated ($g = 1$) | 63.2 | 57.0 | 59.3 | 69.9 | 12.9 | 17.7 |
| Referrals from litigants per conciliator | All | 65.3 | 65.1 | 65.1 | 65.6 | 0.5 | |
| | Control ($g = 0$) | 71.2 | 74.5 | 73.5 | 67.3 | -7.2 | |
| | Treated ($g = 1$) | 58.0 | 53.0 | 54.8 | 63.4 | 10.4 | 17.6 |
| Referrals from judges per conciliator | All | 7.7 | 6.4 | 8.3 | 8.7 | 2.4 | |
| | Control ($g = 0$) | 9.8 | 8.2 | 11.3 | 10.6 | 2.4 | |
| | Treated ($g = 1$) | 5.2 | 4.0 | 4.5 | 6.4 | 2.4 | 0.0 |
| Number of conciliations (all referrals) | All | 234.1 | 233.5 | 230.8 | 235.9 | 2.5 | |
| | Control ($g = 0$) | 194.5 | 197.7 | 199.9 | 189.7 | -8.0 | |
| | Treated ($g = 1$) | 284.0 | 279.2 | 269.0 | 293.3 | 14.1 | 22.1 |
| Number of conciliations (referrals from litigants) | All | 213.9 | 217.3 | 208.8 | 212.5 | -4.8 | |
| | Control ($g = 0$) | 176.8 | 183.6 | 179.3 | 169.9 | -13.6 | |
| | Treated ($g = 1$) | 260.4 | 260.6 | 245.3 | 265.4 | 4.8 | 18.4 |
| Number of conciliations (referrals from judges) | All | 20.3 | 16.1 | 22.0 | 23.4 | 7.3 | |
| | Control ($g = 0$) | 17.6 | 14.1 | 20.6 | 19.8 | 5.6 | |
| | Treated ($g = 1$) | 23.6 | 18.6 | 23.7 | 27.9 | 9.3 | 3.7 |

Source: authors' calculations using data from the Conciliation Survey, SDSE French Ministry of Justice.

The total flow of referrals, i.e. direct referrals and referrals at the request of judges combined, is higher in the treated courts than in the control courts: +37.9% before the reform (487.9 against 353.7) and +46.0% after the reform (504.6 against 345.5). The difference observed is consistent with an increase in the demand for justice, although the variations remain limited. Similar trends are observed if we distinguish between direct referrals from litigants and referrals from judges. In both cases, treated courts show a slightly higher increase than control courts. We also find that the number of direct referrals increased in 2010 compared to 2008 and 2009, which were years with fewer referrals than the 2003-2007 period. The increase in activity in the treated courts observed in 2010 may be related to the fact that the conciliators were more involved in assisting district judges who were faced with implementing the reform for that particular year.

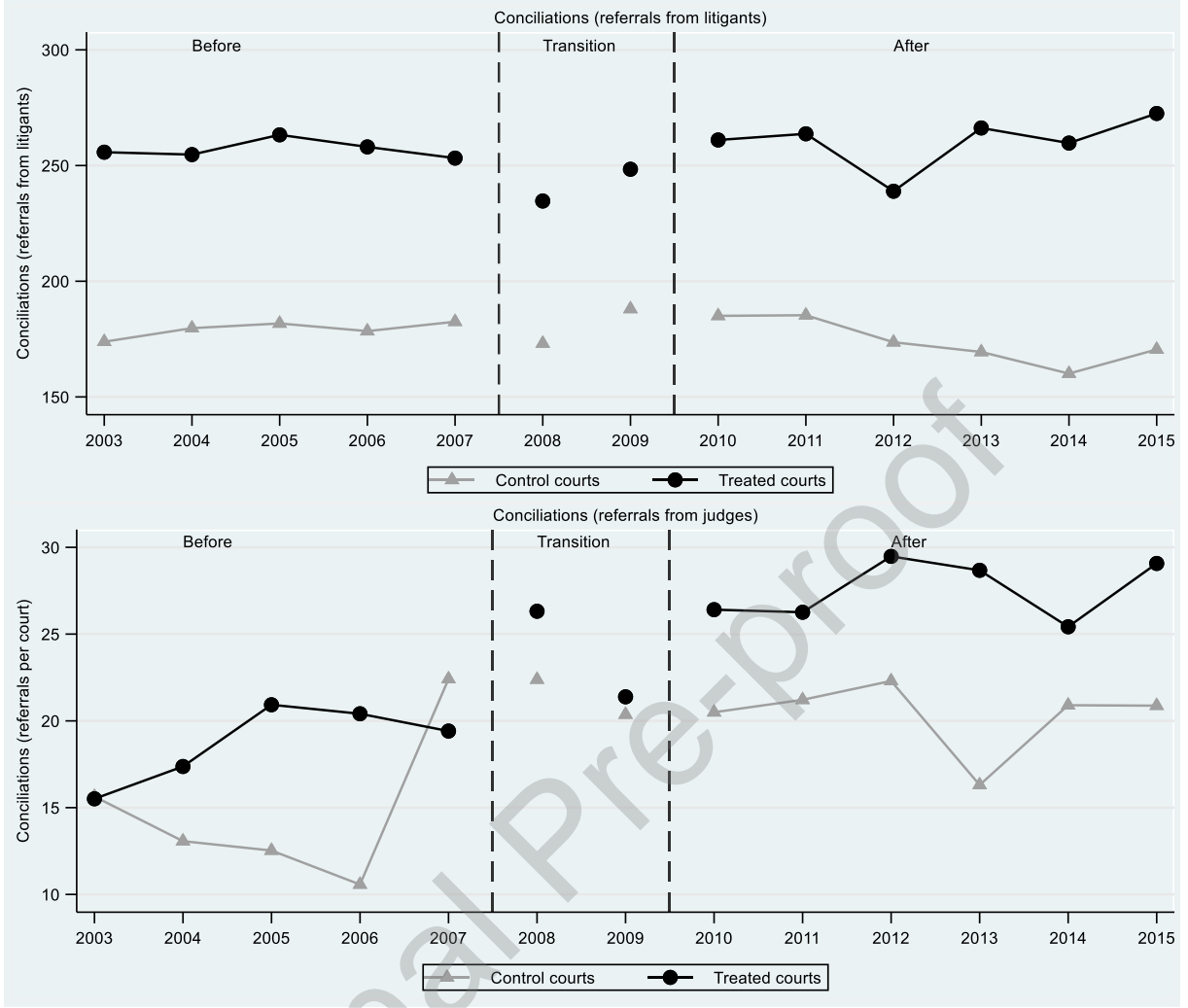


Source: authors' calculations using data from the Conciliation Survey, SDSE French Ministry of Justice.

The differences between control and treated courts become more important when we look at the workload per conciliator. Considering all referrals, the ratio of referrals to conciliators decreased after the reform in the control courts (-4.8, from 82.7 to 77.9), while it increased in the treated courts (+12.9, from 57.0 to 69.9). This difference is explained by the significant increase in direct referrals by conciliators in the treated courts (they decreased in the control courts), since the changes before and after the reforms for referrals by judges are positive and quite similar between the treated and control courts. Additional calculations show an increase in direct referrals per conciliator after the reform, especially for the year 2010. The ratio increases from 54.1 in 2009 to 67.4 in 2010 for the treated courts (+13.3), while it decreases from 74.4 to 69.9 for the control courts (-4.5).

In Table 1, we also look at the differences between the courts on the output side. Over the entire period, the total number of successful conciliations, which is equal to 234.1 on average, is much higher in the treated courts than in the control courts: 284.0 against 194.5. The changes observed after the reform are different, since the number of successful conciliations decreased in the courts not affected by the reform (-8.0, from 197.7 to 189.7), while it increased in the treated courts (+14.1, from 279.2 to 293.3). These variations are essentially due to the success of conciliations related to direct referrals. Figure 4 shows that there is more variation across years for conciliations related to judges' referrals.

Figure 4. Number of successful conciliations per court



Source: authors' calculations using data from the Conciliation Survey, SDSE French Ministry of Justice.

6. Econometric results

6.1. Synthetic DID estimates

For each indicator J_{it} (corresponding to either conciliators, referrals, or number of successful conciliations) observed for court i in year t , we examine whether the changes before and after the reform are significantly different between the two groups of courts. The standard approach is to use a DID estimator. For panel data, the appropriate specification is a fixed effect linear regression in which we control for court-level heterogeneity:

$$J_{it} = c + \alpha_{gt} * \mathbb{1}_{it}^{g=1} * \mathbb{1}_{it}^{t \geq 2010} + \theta_i + \delta_t + \varepsilon_{it} \quad (1)$$

where c is a constant, θ_i is a court-fixed effect, δ_t is a time-fixed effect (corresponding to the different year dummies), $\mathbb{1}_{it}^{g=1}$ is a dummy variable indicating a treated court, $\mathbb{1}_{it}^{t \geq 2010}$ is a dummy equal to one in the post-reform period, and ε_{it} is a random perturbation such that $E[\varepsilon_{it}] = 0$. The fixed effect θ_i captures both observed and unobserved time-invariant heterogeneity at the court level. This includes, for example, the geographic area of the jurisdiction in which the district court is located. In equation (1), the parameter α_{gt} indicates

whether inputs or outputs evolved differently between treated and control courts after the reform.

The validity of the DID estimator depends on the parallel trend assumption, such that both treated and control groups of units should be characterized by parallel trends in outcomes in the absence of treatment. Although there is no statistical test for such an assumption, the graphical results presented in Figures 3 and 4 suggest that a violation of the parallel trend assumption may be a problem in our setting, which would lead to a biased estimate of the impact of the reform. To overcome this difficulty, we decide to rely on the new synthetic DID estimator proposed by Arkhangelsky et al. (2021). Drawing on some insights from the synthetic control method (Abadie and Gardeazabal, 2003; Abadie et al., 2010; Abadie, 2021), the synthetic DID estimator attempts to match the treated and control units on their pre-exposure trends (before the reform). This approach has two major advantages. First, it is invariant to additive unit-specific fixed effects. Second, by construction, matching on pre-exposure trends weakens the reliance on the parallel trend assumption (Arkhangelsky et al., 2021, p. 4090).

In the first step, two sets of weights are calculated from the matching procedure: weights on units $\hat{\omega}_i^{SDID}$ and weights on periods $\hat{\lambda}_t^{SDID}$. In the second step, a weighted version of the classical two-way DID fixed effect regression is estimated. The unit weights are such that the average outcome for the treated units is nearly parallel to the weighted average outcome for the control units. Similarly, the time weights are such that the average outcome after treatment for each control unit differs by a constant from the weighted average outcome before treatment for the same control units. The weighting procedure is such that it gives more weight to the control units that are, on average, more similar in terms of trajectory to the treated units, leading to a sort of local two-way fixed effect regression. The causal effect of the reform is obtained by minimization of:

$$\min \sum_i \sum_t (\mathcal{J}_{it} - c - \delta_t - \theta_i - \alpha_{gt} * \mathbb{I}_{it}^{g=1} * \mathbb{I}_{it}^{t \geq 2010}) \hat{\omega}_i^{SDID} \hat{\lambda}_t^{SDID} \quad (2)$$

In comparison, in the classical DID method, the different weights $\hat{\omega}_i^{SDID}$ and $\hat{\lambda}_t^{SDID}$ are set to one. In the synthetic control approach, both the unit fixed effect θ_i and the time weights $\hat{\lambda}_t^{SDID}$ are excluded. Conversely, in the synthetic DID estimator, more emphasis is placed on the control courts that are similar to the treated courts and less importance is placed on time periods that are too different from the post-reform period (Arkhangelsky et al., 2021). The key feature here is that the synthetic DID estimator reweights the untreated courts so that their weighted outcomes match the outcomes of the treated courts before the reform. From an empirical perspective, we exclude some courts from the sample because a balanced panel is required to calculate the first-stage weights $\hat{\omega}_i^{SDID}$ and $\hat{\lambda}_t^{SDID}$.¹⁸ In addition, we rely on the bootstrap variance estimation with 1,000 replications, as this approach provides robust performance in large panels.

¹⁸ In our sample, the information is available each year for 190 courts and for 12 over the 13 years for 65 courts. When one year is missing for a court, we turn to cubic interpolation to obtain prediction for the missing values.

The synthetic DID estimates are presented in Table 2.¹⁹ As shown in panel A, when the transition period is excluded, we observe no difference between treated and control courts for the referrals, may they be from litigants or judges, and in the ratio of referrals from judges per conciliator. Conversely, the decrease in the number of conciliators is higher in treated courts than in control courts, with a difference of about -9.3% ($= (\exp(-0.098) - 1) * 100$) ($t=-2.52$). We also observe a substantial increase in the number of direct referrals per conciliator (+24.2% more in the treated courts than in the control courts). This is mainly explained by the decrease in the number of conciliators (the denominator of the ratio): the number of direct referrals (the numerator) increases more in the treated courts after the reform, but the change between treated and control courts is not significant ($t=0.97$).

Table 2. Synthetic DID estimates of conciliators and referrals

| Variables | Conciliators (log) | Referrals (log) | | | Referrals per conciliator | | |
|--|-----------------------|-----------------|-----------------|-------------------|---------------------------|--------------------|-------------------|
| | | All | From litigants | From judges | All | From litigants | From judges |
| Panel A. Before (2003-2007) versus After (2010-2015) | | | | | | | |
| Treated court x Post reform period | -0.098** (-2.52) | 0.017 (0.26) | 0.067 (0.97) | -0.099 (-0.49) | 0.157*** (2.79) | 0.209*** (3.38) | -0.057 (-0.45) |
| Court-fixed effects | YES | YES | YES | YES | YES | YES | YES |
| Observations | 2,519 | 2,519 | 2,519 | 2,519 | 2,519 | 2,519 | 2,519 |
| Panel B. Before (2003-2007), Transition (2008-2009) and After (2010-2015) | | | | | | | |
| Treated court x Post reform period | -0.071** (-2.08) | 0.063 (1.14) | 0.065 (1.05) | 0.005 (0.03) | 0.162*** (3.45) | 0.189*** (3.51) | 0.026 (0.23) |
| Court-fixed effects | YES | YES | YES | YES | YES | YES | YES |
| Observations | 2,977 | 2,977 | 2,977 | 2,977 | 2,977 | 2,977 | 2,977 |

Source: authors' calculations using data from the Conciliation Survey, SDSE French Ministry of Justice.

Note: estimates from synthetic DID with bootstrapped standard errors using 1,000 replications. Significance levels are 1% (***), 5% (**) and 10% (*).

In panel B, we consider the entire period 2003-2015 and evaluate the impact of the reform using the years 2003-2009 as the pre-reform period. Our results suggest that including or excluding the 2008-2009 transition period has little influence on our results. Again, we obtain a negative DID coefficient for conciliators and a positive one for direct referrals per conciliator. However, we find that the change in the number of conciliators in treated courts after the reform is smaller in absolute value when the transition period is included, by about 7%. One explanation is that some conciliators anticipated the reform due to the new geographic constraints and decided to leave their positions in 2008 and 2009, as suggested in Figure 3.

We then estimate synthetic DID regressions to assess whether changes in the number of successful conciliations are different for the two groups of courts. According to Table 3, when the transition period is excluded (panel A), the increase in total conciliations is higher for treated courts than for untreated courts, but the coefficient is not significant ($t=0.35$). The synthetic DID estimator is positive for referrals from litigants (0.076), but negative for referrals from judges (-0.054). However, none of the coefficients appears to be statistically significant. The estimates are rather similar when looking at the whole period (panel B).

¹⁹ There are no controls in our regressions other than the court-fixed and time-fixed effects. We are unable to control for changes in resources at the court level (in particular the number of judges) due to data constraints. As the French Ministry of Justice publishes data on the number of judges per court at the jurisdictional level of the court of appeal (which includes several first instance jurisdictions), we cannot track the number of judges at the first instance level. Our estimates may suffer from an omitted variable bias, but we remain confident that the bias should be small because we control for time-invariant unobserved heterogeneity in the courts.

Table 3. Synthetic DID estimates of successful conciliations

| Variables | All conciliations (log) | Conciliations (log) | |
|--|----------------------------|-----------------------------|--------------------------|
| | | Referrals from litigants | Referrals from judges |
| Panel A. Before (2003-2007) versus After (2010-2015) | | | |
| Treated court x Post reform period | 0.025 (0.35) | 0.076 (1.03) | -0.054 (-0.31) |
| Court-fixed effects | YES | YES | YES |
| Observations | 2,519 | 2,519 | 2,519 |
| Panel B. Before (2003-2007), Transition (2008-2009) and After (2010-2015) | | | |
| Treated court x Post reform period | 0.059 (0.95) | 0.066 (1.02) | 0.017 (0.11) |
| Court-fixed effects | YES | YES | YES |
| Observations | 2,977 | 2,977 | 2,977 |

Source: authors' calculations using data from the Conciliation Survey, SDSE French Ministry of Justice.

Note: estimates from synthetic DID with bootstrapped standard errors using 1,000 replications. Significance levels are 1% (***), 5% (**) and 10% (*).

6.2. Mechanism: the role of distance to courts

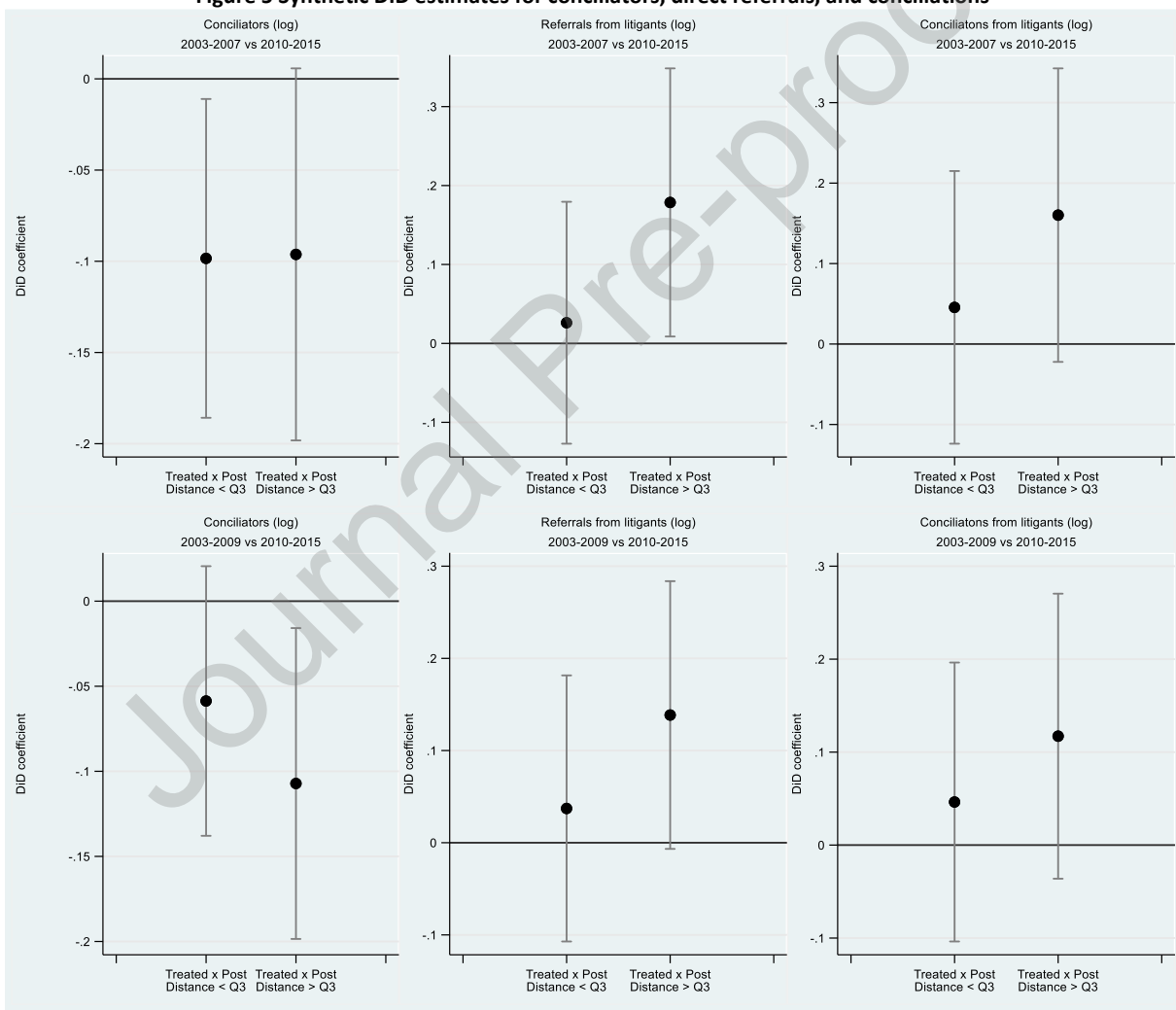
As it stands, our results show that the number of conciliators has decreased more in the courts whose geographical perimeter has changed due to the reform of the judicial map, while there is no real effect on either the demand for justice (proxied by the number of referrals) or the supply of justice (number of successful conciliations). A potential shortcoming is that we have contrasted the situation of the treated and control courts without taking into account the heterogeneity within the treated group of courts. Indeed, for some of them, the distance to the first instance court hardly changed after the reform, but, for other courts, the distance to court increased. In this case, citizens have more incentives to resort to conciliation rather than litigation because of increased effects, either related to distance or to potential congestion in the courts. Conversely, if the distance to court has not really increased, then no clear change in the demand for both litigation and conciliation is to be expected.

At first glance, an average increase in distance of eight kilometers may seem limited. After all, even in relative terms (+50%), the gap may not be large enough to drastically change litigant's behavior, and this may explain why most of the estimates reported in Tables 2 and 3 show no significant effect on the demand for conciliation. Assuming that litigants have their vehicle, the average increase in distance found in the treated courts would add less than 10 minutes to the journey to court. Although we do not have information on the characteristics of litigants, there is suggestive evidence that plaintiffs tend to come from disadvantaged backgrounds. For example, the report by IERDJ (2022) points out that conciliators deal with litigants who are characterized by serious vulnerabilities, such as illiteracy or personal economic hardship. Also, disputes seem to be more generally related to economic stakes, such as consumption, housing leases or neighborhood real estate conflicts, i.e. economic hardship rather than neighbor nuisance. In a report by the Sénat (2012, p.95), the case of the Albi-Gaillac court is mentioned as an "insurmountable obstacle" for the most vulnerable people, especially the elderly, disabled or over-indebted. This suggests that a small change in the distance to the courts can have a serious effect on people facing economic hardship, who tend to be less mobile and more likely to be hit by "precariousness litigations."²⁰

²⁰ See, for example, the response of the French Minister of Justice on March 24, 2011: <https://www.senat.fr/questions/base/2009/qSEQ090207370.html>. The recent report by Deffains and Espinosa

To account for heterogeneity in the increase in distance across treated courts, we proceed as follows. We divide the courts affected by the reform into two groups, using the third quartile of the weighted distance (about 11.7 kilometers) to the court as threshold distance. We choose a sufficiently high value in the distribution to form a group of “intensively treated” courts showing a substantial increase in distance after the reform. This defines a subsample of 28 courts. We then estimate two different synthetic DID regressions for each outcome: one contrasting untreated courts with treated courts below the threshold distance, and one contrasting untreated courts with treated courts above the threshold distance.²¹ We report the estimated DID coefficients in Figure 5 for the following three outcomes: number of conciliators, number of referrals from litigants, and number of successful conciliations. For each outcome, we present results both with and without the 2008-2009 transition period.

Figure 5 Synthetic DID estimates for conciliators, direct referrals, and conciliations



Source: authors' calculations using data from the Conciliation Survey, SDSE French Ministry of Justice.

Note: estimates from synthetic DID with bootstrapped standard errors using 1,000 replications (with confidence interval at a 95 percent level).

(2022) confirms the great heterogeneity of distance in terms of transportation problem and provides evidence that more vulnerable people are further away from their courts of jurisdiction.

²¹ The synthetic DID is currently designed for one single treatment. Its extension to multiple treatments is beyond the scope of this paper.

Our findings suggest that the increased distance to court may have played a role in the various outcomes under consideration. First, the synthetic DID coefficients are such that the number of conciliators was more negatively affected in treated courts than in control courts. Interestingly, the inclusion of the transition period shows that the negative change is more pronounced in jurisdictions characterized by greater distance to court after the reform. In these cases, the conciliators simply decided to stop volunteering and left their activities.²² Second, the increase in referrals from litigants is higher in the treated courts that were the most affected by the reform. Excluding the transition period, the synthetic DID coefficient is insignificant when the increase in distance is below the third quartile ($t=0.33$), but it is positive by almost 20 percentage points ($t=2.06$) when the increase in distance is above the third quartile. The DID effect is slightly lower (15 percentage points) and only significant at a 10 percent level ($t=-1.85$) when the pre-reform period begins in 2003 and ends in 2009. There is no effect of distance when the outcome is the number of referrals from judges, as the DID coefficient is insignificant regardless of distance.

A third result concerns the synthetic DID coefficients associated with successful conciliations from litigants. As shown in Figure 5, when the reference period is 2003-2007, the DID term is about three times higher when the treated courts are those in the top quartile of distance (0.160 and $t=1.72$ against 0.045 and $t=0.53$). The gap is smaller when the reference period is 2003-2009, and the DID coefficient is no longer significant for treated courts in the top quartile of distance ($t=1.50$). One difficulty here is that changes in successful conciliations may be related to changes in inputs. Mechanically, more referrals should lead to more conciliations *ceteris paribus*, but the ability of conciliators to resolve disputes as well as the unobserved complexity of cases will strongly influence their outcome. We have also estimated the synthetic DID regression with the number of successful conciliations from judges as the dependent variable. Again, we find no role for the distance, and the synthetic DID coefficients are never significant.²³

One potential concern in assessing the role of distance is that we do not take into account the possible congestion of courts with respect to the processing of judicial activities. Congestion can undoubtedly influence the decision to resort to conciliation. If congestion tends to be greater in the largest courts, then the influence of distance could be biased due to an omitted variable problem. Although we doubt that litigants have such information about congestion (litigants are more likely to come from disadvantaged backgrounds and data on congestion are far from being public information), we nevertheless attempted to assess the robustness of our findings using proxy variables for congestion. For this purpose, we estimate the above DID regressions with two additional control variables (considered separately to avoid the problem of multicollinearity): the logarithm of the total number of cases received by the court in the previous year and the logarithm of the average duration of cases in the court in

²² Comparing the upper and lower parts of Figure 5 shows that their decision to resign was anticipated by the conciliators: the decline starts in 2008, after the announcement of the reform and before its implementation (from the beginning of 2010).

²³ Additional estimates related to referrals from judges or conciliations from judges are available upon request. We have also attempted to include the role of the new access points in our estimates. We were only able to track the number of new offices created in each jurisdiction after the reform. Virtually as many new access points were created in the treated jurisdictions as in the control jurisdictions (at least one new access point in 41.1% of the treated jurisdictions and 39.3% of the control jurisdictions). We attempted to control for the number of access points created in our regressions, but the introduction of this additional regressor had no effect on our results.

the previous year (Voigt, 2016). In both cases, estimates from synthetic DID regressions show that congestion does not modify the effect of distance aforescribed, which is hardly surprising, given the presumed lack of information of litigants on the situation of courts.

6.3. Estimation of a production function for conciliation

As a final step, we assess how the resolution rate of conciliations has evolved net of the contribution of the different inputs to judicial activity (conciliators and referrals). We are thus interested in the impact of the reform on judicial productivity. As in Dimitrova-Grajzl et al. (2012), we consider a Cobb-Douglas function to explain the production of justice.²⁴ Expressed in logarithmic form, the production function to be estimated is:

$$\ln C_{it} = c + \alpha_N \ln N_{it} + \alpha_R \ln R_{it} + \alpha_g * \mathbb{1}_{it}^{g=1} + \alpha_{gt} * \mathbb{1}_{it}^{g=1} * \mathbb{1}_{it}^{t \geq 2010} + \theta_i + \delta_t + \varepsilon_{it} \quad (3)$$

where α_N and α_R are the elasticities associated with the number of conciliators and the number of referrals. Successful conciliation may have evolved differently between treated and control courts for two reasons. First, inputs may have changed as a result of the reform. Second, given their increased workload, the efficiency of conciliators may have been affected, for example, by a change in the time spent per case or in the characteristics of the conciliators. In (3), the coefficient of interest is α_{gt} , which is now net of the influence of the inputs. Again, we turn to the synthetic DID estimator and include the set of inputs $\ln N_{it}$ and $\ln R_{it}$ as covariates. We use the optimized procedure described in Arkhangelsky et al. (2021).

The results are shown in Table 4. We estimate separate models for the total number of conciliations (conciliations ensuing litigant referrals and conciliations ensuing judge referrals). In each regression, we include the number of conciliators and the number of direct and indirect referrals as covariates. Our main conclusion is that the production of successful conciliations did not evolve differently between the treated and control courts once the inputs are introduced as controls in the production function. Regardless of the inclusion of the 2008-2009 transition period, the term crossing treated courts and post-reform period is never significant. Some additional estimates, not reported, indicate that this conclusion still holds when comparing the control jurisdictions to the jurisdictions with higher increased distance to first instance court.²⁵ We also note that the DID coefficients reported in Table 4 are much smaller than those in Table 3, suggesting that some of the changes in successful conciliations were mediated by changes in inputs.

A potential shortcoming is that the estimation of (3) provides unbiased coefficients for the different parameters only if the explanatory factors are uncorrelated with the residual ε_{it} . In our context, this exogeneity assumption is potentially problematic due to simultaneity bias, which affects the estimation of any production function (Olley and Pakes, 1996; Levinsohn and Petrin, 2003; Akerberg et al., 2015).²⁶ In jurisdictions where the number of successful

²⁴ We also estimated a quadratic production function (results available upon request). This specification does not change the coefficient that we obtain for the DID interaction term in the production function.

²⁵ For example, the DID interaction term is 0.009 (t=0.20) when treated courts in the top quartile of distance are in a regression explaining direct referrals from litigants.

²⁶ Omitted variables related to court characteristics are not a concern because we include a court-fixed effect θ_i in (3). Another potential source of endogeneity is measurement error. Since the data are provided by the Ministry

achieved conciliations is low, the judiciary may question the issue of human resources and decide to hire additional conciliators. This would result in an inverse causal relationship, with a low output \mathcal{C}_{it} leading to an increase in \mathcal{N}_{it} . Conversely, if conciliations in a given jurisdiction are numerous and carried out rapidly, this may increase the demand for local justice with additional referrals from plaintiffs. This endogeneity of inputs may bias the estimation of the elasticities $\alpha_{\mathcal{N}}$ and $\alpha_{\mathcal{R}}$ in (3) and, through contamination, the coefficient α_{gt} .

Table 4. Synthetic DID estimates of production function of conciliations

| Variables | All conciliations (log) | Conciliations (log) | |
|--|----------------------------|-----------------------------|--------------------------|
| | | Referrals from litigants | Referrals from judges |
| Panel A. Before (2003-2007) versus After (2010-2015) | | | |
| Treated court x Post reform period | -0.007 (-0.19) | 0.023 (0.66) | 0.003 (0.06) |
| Inputs (conciliators and referrals) | YES | YES | YES |
| Court-fixed effects | YES | YES | YES |
| Observations | 2,519 | 2,519 | 2,519 |
| Panel B. Before (2003-2007), Transition (2008-2009) and After (2010-2015) | | | |
| Treated court x Post reform period | 0.017 (0.44) | 0.018 (0.55) | 0.016 (0.35) |
| Inputs (conciliators and referrals) | YES | YES | YES |
| Court-fixed effects | YES | YES | YES |
| Observations | 2,977 | 2,977 | 2,977 |

Source: authors' calculations using data from the Conciliation Survey, SDSE French Ministry of Justice.

Note: estimates from synthetic DID with placebo standard errors using 2,500 replications are reported in panels A3 and B3. Significance levels are 1% (***) , 5% (**) and 10% (*).

Following Dimitrova-Grajzl et al. (2012), we exploit the longitudinal dimension of the data to address the issue of input endogeneity. Instead of assuming strict exogeneity of inputs, we assume sequential endogeneity for the number of conciliators and referrals. Under this assumption, the error term ε_{it} is assumed to be uncorrelated only with the current and past values of the inputs and other explanatory variables. In contrast, ε_{it} may be correlated with future values of the inputs. For example, if the number of conciliations completed in year t leads to an adjustment in the number of conciliators in year $t + 1$ to meet increasing demand, then the error term ε_{it} will be uncorrelated with the number of conciliators \mathcal{N}_{it} , but will instead be correlated with the future values $\mathcal{N}_{i,t+w}$ with $w > 0$. To estimate such a panel model under sequential exogeneity, the solution proposed by Wooldridge (2010) is to start with the regression (3) estimated in first difference, which eliminates the court-fixed effect θ_i , and then use an instrumental variable strategy:

$$\Delta \ln \mathcal{C}_{it} = \alpha_{\mathcal{N}} \Delta \ln \mathcal{N}_{it} + \alpha_{\mathcal{R}} \Delta \ln \mathcal{R}_{it} + \alpha_{gt} * \Delta (\mathbb{1}_{it}^{g=1} * \Delta \mathbb{1}_{it}^{t \geq 2010}) + \Delta \delta_t + \Delta \varepsilon_{it} \quad (4)$$

where Δ is the difference operator. In equation (4), variations in the inputs $\Delta \ln \mathcal{N}_{it}$ and $\Delta \ln \mathcal{R}_{it}$ remain correlated with the error term $\Delta \varepsilon_{it}$. However, sequential exogeneity provides instruments for the inputs. Under this assumption, the lagged changes in the inputs $\Delta \ln \mathcal{N}_{i,t-1}$ and $\Delta \ln \mathcal{R}_{i,t-1}$ are uncorrelated with the first-difference residual $\Delta \varepsilon_{it}$ and can thus be used as instruments for the covariates $\Delta \ln \mathcal{N}_{it}$ and $\Delta \ln \mathcal{R}_{it}$. Since there are two instruments for two endogenous variables, the model is therefore exactly identified. Endogeneity bias-

of Justice, we assume that both judicial inputs and outputs are correctly (without error) registered by the statistical services of the French Ministry of Justice.

corrected estimates of the various coefficients can be obtained using a two-stage least squares estimator.²⁷

The first-difference IV estimates are reported in Table 5. Regardless of the definition of the reference period, the term crossing treated courts and post-reform period is never significant when the inputs are introduced as controls in regressions explaining the total number of conciliations (column 1). We find similar results for direct conciliations, while the DID coefficient is barely significant for conciliations ensuing referrals from judges (positive effect, significant at a 10 percent level in panel B). We further examined whether distance had an impact on our results, but found no evidence of changes in the production of successful conciliations between control courts and the treated courts that were the most affected in terms of distance once inputs are controlled for.

Table 5. IV first difference estimates of production function of conciliations

| Variables | All conciliations (log) | Conciliations (log) | |
|--|----------------------------|-----------------------------|--------------------------|
| | | Referrals from litigants | Referrals from judges |
| Panel A. Before (2003-2007) versus After (2010-2015) | | | |
| Treated court x Post reform period | 0.026 (0.50) | -0.010 (-0.21) | 0.130 (1.61) |
| Inputs (conciliators and referrals) | YES | YES | YES |
| Instruments : lagged conciliators and referrals | YES | YES | YES |
| Observations | 1,973 | 1,973 | 1,973 |
| Panel B. Before (2003-2007), Transition (2008-2009) and After (2010-2015) | | | |
| Treated court x Post reform period | 0.014 (0.27) | -0.014 (-0.33) | 0.146* (1.82) |
| Inputs (conciliators and referrals) | YES | YES | YES |
| Instruments : lagged conciliators and referrals | YES | YES | YES |
| Observations | 2,423 | 2,423 | 2,423 |

Source: authors' calculations using data from the Conciliation Survey, SDSE French Ministry of Justice.

Note: estimates from IV first difference estimates. Significance levels are 1% (***) , 5% (**) and 10% (*).

7. Discussion and concluding comments

This article examines whether the French reform of the judicial map has had an impact on conciliation. This reform, which began in mid-2007 and led to a new configuration of courts in January 2010, resulted in the closure of more than a third of first instance courts. As in many European countries, the impetus for reduction was a concern to rationalize costs and to concentrate jurisdictions of “sufficient size” to promote the specialization of judges and the reduction of court delays. In France, the reduction in the number of courts has increased the average distance litigants have to travel to court in the treated jurisdictions by 8.2 kilometers, an increase of about 50% in relative terms. This may have an impact both on the demand side, with an increased demand for conciliation rather than litigation in the courts affected by the reform, and on the supply side in the duty work decisions of conciliators.

Complementing Espinosa et al. (2017), who focused on distance to labor courts and trial demand, we provide an empirical analysis that examines for the first time whether the increased distance to civil courts after the reform has affected the demand for conciliation. To do so, we construct a sample of French courts over the period 2003-2015 and rely on unique

²⁷ The number of observations decreases inasmuch as at least three consecutive years per court are required to use $\Delta \ln \mathcal{N}_{i,t-1}$ and $\Delta \ln \mathcal{R}_{i,t-1}$ as instruments for $\Delta \ln \mathcal{N}_{it}$ and $\Delta \ln \mathcal{R}_{it}$.

data on referrals, conciliators and conciliations. We use cartographic and census data to examine changes in the distance to courts. Specifically, we compare changes in both inputs (number of conciliators and number of referrals, from either litigants or judges) and outputs (resolution rates of conciliations, from either litigants or judges) before and after the reform between courts affected by the reform and unaffected courts. In our econometric analysis, we rely on the new synthetic DID estimator proposed by Arkhangelsky et al. (2021), which allows a comparison of perfectly similar courts before the reform, and account for the endogeneity of inputs in the production function by assuming sequential exogeneity as in Dimitrova-Grajzl et al. (2012). We also pay close attention to changes in the geographic distance to the treated courts. We reach two main conclusions.

On the supply side, we find that the number of conciliators decreased in the treated courts after the reform, while it remained constant in the control group of courts. One explanation could be the expected increase in caseload in a context of reduced resources. The fear of having more work may have deterred conciliators from continuing their involvement in the profession. This would be consistent with the fact that the decline in the number of conciliators is higher in the treated courts where the distance has increased the most. It is also consistent with the decision of conciliators to leave the profession shortly after the announcement of the reform and partly before the new configuration in 2010, as suggested in Figure 3. The conciliators in place may have anticipated the increased efforts associated with their activity, possibly expecting to devote more time to an increased number of cases or more time to meet with litigants that are more distant. Conciliators are unpaid workers and the lack of monetary compensation may explain this change on the supply side.

On the demand side, results are less clear. On the one hand, we find no differential effect with respect to changes in referrals (from either litigants or judges) when we compare the two groups of courts, using the synthetic DID estimator. On the other hand, a closer look at the impact of distance provides additional evidence such that the number of referrals from litigants increased more in the treated courts characterized by the highest increase in distance. Nevertheless, our findings should be interpreted with caution. Although the role of distance is net of some possible court congestion, the number of intensively treated courts (those in the top quartile of distance) remains limited, and the synthetic DID coefficients are only statistically significant at a 5 percent level.

Two complementary explanations can be considered to rationalize our results. First, on the demand side, the increase in distance may be too limited to lead to a drastic change in the number of cases going to conciliation. In addition, many cases concern “precariousness litigation” and involve people facing economic dire straits and who may be inclined to resort to conciliation as it is non-chargeable. This suggests that the demand for such ADR would be rather insensitive to local conditions, as litigants do not really have an alternative choice (see Grajzl and Siwal, 2020). Second, on the supply side, the conciliators themselves make the decision to volunteer. The reform was expected to directly affect the living conditions of non-professional judges, and some of them refused to renew their terms. Overall, our empirical analysis provides new results with respect to the existing literature, which has not yet considered the impact of changes in the judicial map on conciliation.

Two main caveats must be kept in mind when interpreting our results. A first limitation is that the increased distance and the increased caseload may have had an impact on the type of settlement chosen by the parties. The focus of this paper is on conciliation, but mediation and informal negotiation are other options for which we have no data. Thus, our results may suffer from a selection effect due to changes in the complexity of cases after the reform. We cannot propose a solution because we work with court-level data and have no information (even aggregated) on the composition of the caseload. As they stand, our results provide a partial measure of the impact of the reform of the judicial map. It would be of interest to further investigate whether litigants have increasingly turned to mediation or were more likely to resolve disputes on their own. Nevertheless, we believe that our focus on conciliation captures a large part of the potential effect of ADR. On the one hand, mediation mainly concerns litigation related to consumer disputes, commercial disputes between companies, and disputes with the public authorities and the tax administration (*Inspection Générale de la Justice*, 2015), which are outside the scope of conciliation. On the other hand, mediation is generally costly, making it less accessible to people with low incomes. Therefore, mediation cannot be seen as a perfect substitute for civil conciliation in disputes in everyday life especially when they arise from vulnerable people.

A second limitation is that we do not have information at the level of the conciliators. It would be interesting to know whether there is a selection effect in the decision of conciliators to continue or stop their engagement, depending on their (unobserved) productivity (unobserved). In our paper, we focus only on the impact of the reform on the number of conciliators, but there may be substantial changes in the composition of teams. If the most qualified and experienced conciliators have decided to continue their volunteering despite the reform, then the departure of less efficient conciliators may have little influence on the final production of conciliations. Information on the complexity of the cases under the responsibility of each conciliator, as well as detailed individual characteristics of the conciliators, would be welcome in order to better understand how any reform of the judicial map may affect the delivery of justice on the supply side. More generally, it would be interesting to compare the impact on the different types of settlements and to document how litigants choose between conciliation and mediation.

References

- Abadie, A., 2021. Using synthetic controls: Feasibility, data requirements, and methodological aspects. *Journal of Economic Literature*. 59(2). 391-425. [10.1257/jel.20191450](https://doi.org/10.1257/jel.20191450)
- Abadie, A., Diamond, A., Hainmueller, J., 2010. Synthetic control methods for comparative case studies: Estimating the effect of california's tobacco control program. *Journal of the American Statistical Association*. 105(490), 493-505. <https://doi.org/10.1198/jasa.2009.ap08746>
- Abadie, A., Gardeazabal, J., 2003. The economic costs of conflict: A case study of the Basque country. *American Economic Review*. 93(1), 113-132. [10.1257/000282803321455188](https://doi.org/10.1257/000282803321455188)
- Ackerberg, D., A., Caves, K., Frazer, G., 2015. Identification properties of recent production function estimators. *Econometrica*. 3 : 2411-2451. <https://doi.org/10.3982/ECTA13408>
- Arkhangelsky, D., Athey, S., Hirshberg, D., A., Imbens, G., W., Wager, S., 2021. Synthetic difference-in-differences. *American Economic Review*, 111(12), 4088-4118. [10.1257/aer.20190159](https://doi.org/10.1257/aer.20190159)
- Banasik, P., Metelska-Szaniawska, K., Godlewska, M., Morawska, S., 2022. Determinants of judges' career choices and productivity: A Polish case study. *European Journal of Law and Economics*. 53, 81–107. <https://doi.org/10.1007/s10657-021-09688-4>
- Bermant, G., Hennemuth, J., A., Mangum, A., F., 1994. Judicial vacancies: An examination of the problem and possible solutions. *Mississippi College Law Review*. 14 (2). <https://dc.law.mc.edu/lawreview/vol14/iss2/24>
- Bielen, S., Grazlj, P., & Marneffe, W. 2017, Procedural events, judge characteristics, and the timing of settlement. *International Review of Law and Economics*, 52, 97-110.
- Bound, J., Jaeger, D., A., Baker, R., M., 1995. Problems with instrumental variables estimation when the correlation between the instruments and the endogenous explanatory variable is weak. *Journal of the American Statistical Association*. 90 (430), 443-450. <https://doi.org/10.2307/2291055>
- Branco, P., 2019 The geographies of justice in Portugal: redefining the judiciary's territories. *International Journal of Law in Context*. 15, 442–460. doi: [10.1017/S1744552319000399](https://doi.org/10.1017/S1744552319000399)
- Brunin, L., Pirot, P., 2017. L'Activité des Conciliateurs de Justice en 2015. *Infostat Justice*. 148.
- Buchser-Martin, C., Manteaux, B. 2018. *Le Guide de la Conciliation devant le Tribunal d'Instance. Guide à l'Usage des Conciliateurs*. Ministère de la Justice, 4^{ème} édition
- Buscaglia, E., Ulen, T., 1997. A quantitative assessment of the efficiency of the judicial sector in Latin America. *International Review of Law and Economics*. 17(2), 275-291. [https://doi.org/10.1016/S0144-8188\(97\)00007-0](https://doi.org/10.1016/S0144-8188(97)00007-0)
- CEPEJ, 2012. Comparative study of the reforms of the judicial maps in Europe. Sciences Po Strasbourg Consulting
- CEPEJ, 2013. Comparative study of the reforms of the judicial maps in Europe. Update concerning Portugal and Croatia. Sciences Po Strasbourg Consulting.
- Chappe, N., Obidzinski, M., 2013. Demande en justice et nombre de tribunaux. *Revue d'Economie Politique*. 123 (6), 851-860. <https://doi.org/10.3917/redp.236.0851>
- Chappe, N., Obidzinski, M., 2014. The impact of the number of courts on the demand for trials. *International Review of Law and Economics*. 37, 121–125. <https://doi.org/10.1016/j.irl.2013.09.002>
- Christensen, R., K., Szmer, J., 2012. Examining the efficiency of the U.S. courts of appeals: Pathologies and prescription. *International Review of Law and Economics*. 32(1), 30-37. <https://doi.org/10.1016/j.irl.2011.12.004>

- Cohen, J., M., 2002. Inside appellate courts: The impact of court organization on judicial decision making in the United States courts of appeal, Ann Arbor: University of Michigan Press.
- Cour des Comptes, 2015. La réforme de la carte judiciaire : une réorganisation à poursuivre, Le rapport public annuel 2015.
- Cour des Comptes, 2022. Point d'étape du plan de transformation numérique du ministère de la justice. Communication à la commission des finances du Sénat – Janvier 2022.
- Deffains, B., Musson, D. 2022. Numériser La justice commerciale française : l'outil et l'esprit. Livre Blanc. Paris City of Law
- Deffains, B., Espinosa, R. 2022. Accès à la justice en France : une approche en termes d'économie spatiale. Note d'études pour la Fondation pour le Droit Continental
- Deyneli, F., 2012. Analysis of relationship between efficiency of justice services and salaries of judges with two-stage DEA method. *European Journal of Law and Economics*, 34(3), 477–493. <https://doi.org/10.1007/s10657-011-9258-3>
- Dias, J. P. and Gomes, C. 2018. Judicial Reforms 'Under Pressure': The New Map/Organisation of the Portuguese Judicial System, *Utrecht Law Review*. 14(1), 173-186. <http://doi.org/10.18352/ulr.448>
- Dimitrova-Grajzl, V., Grajzl, P., Sustersic, J., Zajc, K., 2012. Court output, judicial staffing, and the demand for court services: Evidence from Slovenian courts of first instance. *International Review of Law and Economics*. 32(1), 19-29. <https://doi.org/10.1016/j.irl.2011.12.006>
- Dimitrova-Grajzl, V., Grajzl, P., Zajc, K., 2014. Understanding modes of civil case disposition: Evidence from Slovenian courts. *Journal of Comparative Economics*. 42(4), 924–939. <https://doi.org/10.1016/j.jce.2014.04.006>
- Espinosa, R., Desrieux, C., Wan, H., 2017. Fewer courts, less justice? Evidence from the 2008 French Reform of Labour Courts. *European Journal of Law and Economics*. 43 (2), 195–237. <https://doi.org/10.1007/s10657-015-9507-y>
- Espinosa, R., Desrieux, Ferracci, M., 2018. Labor market and access to justice. *International Review of Law and Economics* 54. 1-8. <https://doi.org/10.1016/j.irl.2017.09.008>
- Eisenberg, T., Lanvers, C., 2009. What is the settlement rate and why should we care? *Journal of Empirical Legal Studies*, 6(1), 111–146. <https://scholarship.law.cornell.edu/facpub/203>
- Ficet, J., 2011. La Justice, Terrain hostile au nouveau management public ? La difficile introduction de la 'gestion intégrale' dans les juridictions en Belgique. *Revue Internationale de Politique Comparée*. 18(4), 91.
- Fournier, G. M., Zuehlke, T., W., 1996. The timing of out-of-court settlements. *RAND Journal of Economics*. 27(2), 310–321. <https://doi.org/10.2307/2555928>
- Gomes, C., 2007. The transformation of the Portuguese judicial organization: Between efficiency and democracy. *Utrecht Law Review*. 3, 101–111. DOI: 10.18352/ulr.39
- Gould, J., P., 1973. The economics of legal conflicts. *Journal of Legal Studies*. 2(2), 279–300. <https://www.jstor.org/stable/724054>
- Grajzl, P., Zajc, K., 2017. Litigation and the timing of settlement: evidence from commercial disputes. *European Journal of Law and Economics*. 44(2), 287–319. <https://doi.org/10.1007/s10657-016-9540-5>
- Grajzl, P., Silwal, S., 2020. Multi-court judging and judicial productivity in a career judiciary: Evidence from Nepal. *International Review of Law and Economics*. 61, 1-20. <https://doi.org/10.1016/j.irl.2020.105888>

- Direction des Services Judiciaires (DSJ), 2021. Guide de la conciliation, Ministère de la Justice.
- Inspection Générale des Services Judiciaires, 2015. Rapport "Sur le développement des modes amiables de règlement des différends", Avril 2015 (22-15).
- Kessler, D., 1996. Institutional causes of delay in the settlement of legal disputes. *Journal of Law, Economic, and Organization*. 12(2), 432-460. <https://www.jstor.org/stable/765119>
- Landes, W., M., 1971. An economic analysis of the courts. *Journal of Law and Economics*. 14(1), 61-107. <https://www.jstor.org/stable/724858>
- Ledermann, L., 1999. Which cases go to trial?: An empirical study of predictors of failure to settle. *Case Western Reserve Law Review*. 49(2), 315-358. <https://www.repository.law.indiana.edu/facpub/548>
- Levinsohn, J., Petrin, A., 2003. Estimating production functions using inputs to control for unobservables. *Review of Economic Studies*. 70(2), 317–341. <https://www.jstor.org/stable/3648636>
- Lindquist, S., A., 2007. Bureaucratization and balkanization: The origins and effects of decision-making norms in the federal appellate courts. *University of Richmond Law Review*. 41, 659–706. <https://scholarship.richmond.edu/lawreview/vol41/iss3/4>
- Mak, E., 2008. Balancing territoriality and functionality; specialization as a tool for reforming jurisdiction in the Netherlands, France and Germany. *International Journal for Court Administration*. 1, 2–9. DOI: [10.18352/ijca.97](https://doi.org/10.18352/ijca.97)
- Murrell, P., 2001. Demand and supply in Romanian commercial courts: Generating information for institutional reform. Manuscript: IRIS Center; University of Maryland.
- Olley, G., S., Pakes, A., 1996. The dynamics of productivity in the telecommunications equipment industry. *Econometrica*. 64(6), 1263-1297. <https://doi.org/10.2307/2171831>
- Posner, R., 1973. An economic approach to legal procedure and judicial administration. *Journal of Legal Studies*. 2(2), 399-458. <https://www.jstor.org/stable/724058>
- Sénat, 2008. Rapport d'information n° 60 (AN - XIIIe législature) de M. Max Roustan, au nom de la délégation à l'aménagement du territoire, sur la carte judiciaire, février 2008.
- Sénat, 2012. La réforme de la carte judiciaire : une occasion manquée, Rapport d'information, Borvo Cohen-Seat and Détraigne, 2012
- Sénat, 2013. Rapport d'information de MM. Albéric de MONTGOLFIER et Philippe DALLIER, fait au nom de la commission des finances. Le bilan immobilier de la réforme de la carte judiciaire: recommandations pour une justice mieux logée, n° 627 (2012-2013) - 5 juin 2013
- Teixeira, J., C., Bigotte, J., F., Repolho, H., M., Antunes, A., P., 2019. Location of courts of justice: The making of the new judiciary map of Portugal. *European Journal of Operational Research*. 272(2), 608–620. <https://doi.org/10.1016/j.ejor.2018.06.029>
- L'union syndicale des magistrats, 2010. La réforme de la carte judiciaire. Le nouveau pouvoir judiciaire - n° 392 Livre blanc bilan 2010, p. 52-63.
- Van Dijk, F., Horatius, D., 2013. Judiciary in times of scarcity: retrenchment and reform. *Int. J. Court Adm.* 5(1), 15–24. DOI: [10.18352/ijca.4](https://doi.org/10.18352/ijca.4)
- Vereck, L., Muhl, M., 2000. An economic theory of court delay. *European Journal of Law and Economics*, 10(3), 243-268. <https://doi.org/10.1023/A:1026547515846>
- Voigt, S., 2016. Determinants of Judicial Efficiency: A Survey, *European Journal of Law and Economics*, 42(2), 183-208.
- Wooldridge, J., M., 2010. *Econometric Analysis of Cross Section and Panel Data*. 2nd edition, MIT Press Books, The MIT Press. <https://doi.org/10.2307/1912934>

Highlights

- The 2010 reform of the French judicial map markedly reduced the number of first instance courts and increased distance effects for litigants
- We study changes in the number of referrals, conciliators and conciliations following the reform between treated and unaffected courts
- The caseload per conciliator has increased more significantly in treated courts characterized by higher distance effects than other courts
- The reform has had no effect on the number of conciliations once inputs are controlled for