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One judge to rule them all: Single-member courts as an answer to delays in criminal trials

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Abstract

This paper is a discussion of whether single-member judicial panels are an effective way of accelerating the delivery of criminal justice. We use a reform which introduced single-member courts in Greece, where delays in court proceedings are common according to the European Justice Scoreboard and the European Court of Human Rights. We use a novel dataset of 1463 drug trafficking cases tried between June 2012 and January 2014. As our measure of efficiency we use the time to issue a decision, and we find that single-member panels are as efficient as three-member ones. We take advantage of a feature of the reform to control for several confounding factors and support a causal interpretation of our findings. We complement our analysis with a survey of 142 judges to guide our interpretation of the results.

KEYWORDS
criminal justice, efficiency, groups, individuals

INTRODUCTION: ON THE EFFICIENCY OF COURTS

William Gladstone once remarked, reflecting on conventional wisdom, that "justice delayed is justice denied." There is a lot to be said about the consequences of the consistent failure of a justice system to be efficient and resolve

disputes in a timely manner. According to the European Commission for the Efficiency of Justice (2016):

> Court efficiency plays a crucial role for upholding the rule of law, by ensuring that all persons, institutions and entities, both public and private, including the State, are accountable, and by guaranteeing timely, just and fair remedies. It supports good governance and helps combating corruption and building confidence in the institutions. An efficient court system is an essential ingredient of an environment that allows individuals to pursue their human development through the effective enjoyment of economic and social rights, and which also promotes investment and encourages business.

Court efficiency remains a central—but understudied—policy concern for most jurisdictions. Court delays are more than an inconvenience for the parties involved, as they tend to undermine the public's trust in the judiciary (Cabrillo & Fitzpatrick, 2008). The efficiency of justice systems is also important for the levels of economic activity and growth (Marciano et al., 2018; Weder, 1995). Apart from the European Commission for the Efficiency of Justice (henceforth CEPEJ), several European and global institutions, including the World bank and the Organization for Economic Co-operation and Development, have raised the issue, which is particularly pressing for countries operating their judicial systems with a tight budget. Despite theories which claim the opposite (Beenstock & Haitovsky, 2004), hiring more judges and generally adding more judicial resources can be a way of accelerating the delivery of justice (Mitsopoulos & Pelagidis, 2007, 2009; Rosales-Lopez, 2008). Consequently, for many countries, the most pressing policy question of all seems to be how court efficiency can be improved without increasing the budget.

One obvious way to achieve this goal could be the introduction of single-member courts: even taking into account the additional costs of making more courtrooms available (including security, clerical assistance, etc.), replacing three-member courts with a single judge would free up a significant number of judges, who could work on other cases. Traditional legal wisdom maintains that we have good reasons to prefer multi-member courts for serious cases: three (or more) heads are better than one. Assuming that individual judges do their job well, the accuracy of rulings (measured by either "objective" or "community-shaped" standards) will increase in collective decisions (Kornhauser & Sager, 1986). This policy trend is very common across jurisdictions (Table B1), with many higher courts consisting of three or more judges. At the same time, multi-member courts commonly handle serious cases in the first instance, including criminal offenses such as felonies. Reflecting this approach, all felonies were tried exclusively by three-member courts before the reform studied in this paper.

Collective judicial decision-making is, of course, more complex than three or more judges combining forces to produce the best possible decision.

Panel effects have been studied extensively and there is evidence to suggest that factors such as ideology, gender (Peresie, 2005), and race (Kastellec, 2013) affect how judges think and rule. Regarding ideology, studies from the United States (where the ideological distinction between Democrats and Republicans is more clear and easy to identify) find that panel effects can outweigh individual effects (Cross & Tiller, 1998; Revesz, 1997; Sunstein et al., 2006). In jurisdictions where judges are not elected and are generally expected to be "non-political," we would expect panel effects to work differently, but the point remains that collective judicial decisions are not a simple matter of individuals considering the factual and legal issues on their own. On the contrary, judges work together to reach a conclusion (hence the appeal of multi-member courts for more serious cases). This is especially true in criminal courts, where judges hear cases through a mostly oral procedure, deliberate to announce a verdict, and, when this process is over, spend time on issuing a written decision. This is how the courts we study operate and the same is true for most civil law jurisdictions. Furthermore, when people engage in teamwork, one might expect something resembling a division of tasks. So, in our case, we would be justified in expecting that issuing the formal decision would take less time, since three judges could divide the task of writing. If one judge is not slower in carrying out the same tasks, the gains in terms of efficiency are obvious, even taking into account the additional cost of more courtrooms, security, clerical assistance, and so on.

The effects of specific reforms are a useful indication of how court performance can be improved (Yeung et al., 2022). Comparisons between the efficiency of single-member panels and that of multi-member panels are not uncommon in the literature (Baas et al., 2010; Mori, 2011), but, as we will explain later, this paper benefits from an ideal setting for the study of single-member court efficiency. Our work directly answers the question "How efficient are single-member courts?" by looking at how long the same judges take to process very similar cases when sitting in both single- and three-member panels. Our findings suggest that one judge takes as much time as three judges to issue a judgment, including formally releasing it.

We reach these conclusions by studying a recent reform in Greece, a country with one of the least efficient judicial systems in Europe (more on this below). The explicit aim of the reform was to accelerate the delivery of justice. In 2012, the Greek government, operating under tight fiscal constraints, attempted to improve the efficiency of the courts by instituting single-member judicial panels for several serious crimes (carrying prison sentences between 5 and 15 years—"felonies" for brevity). The newly established panels' purpose was to eventually take over the full workload previously assigned to three-member panels, thus freeing two judges to focus on other duties. Felonies carrying life sentences remained outside the scope of the reform.

The way this reform was implemented allows us to compare the efficiency of the two types of panels in an almost ideal way. To do so, we manually collected

original data for all the drug- related offenses of a specific type (possession with intent to sell) tried in the court of Athens, the biggest court of the country, between June 2012 and January 2014. The unique precision of our dataset allows us to consider a measure of efficiency at the individual defendant level: the time elapsed between the discussion in court and the release of the written decision of the panel. This measure is a direct product of the dataset at our disposal, which allows us to focus on specific offenses in a given period of time before and after the reform. This is made possible by the fact that the assignment of the cases studied to panels was based on a cut-off date depending on when the subpoena was served, meaning that judges were quasi-randomly assigned to try cases alone or with two colleagues for the whole duration of our sample (more on this in Section 3). Furthermore, we report results from a survey of 142 Greek judges administered in 2019, to gauge their appreciation of the reform and help us interpret our findings.

Given the above, this study provides a valuable opportunity to assess the efficiency of single-member courts compared to that of three-member courts in a near-ideal setting. Despite the fact that both types of courts are particularly common in most jurisdictions, to our knowledge there are no similar studies in the literature. Mori (2011) records the views of all parties involved in trials in the United Kingdom regarding the performance of professional judges (who sit alone) and magistrates (who sit in three-member panels). The perception is that three-member panels work better in terms of both quality and speed, but there is a crucial difference between the two types of panels, given that the comparison is between professional judges on the one hand, and lay judges on the other. Baas et al. (2010) find similar support for multi-member panels in the Netherlands, but, in their study, the cases tried by single-member and multi-member panels, respectively, differ in kind.[1] Our study assesses court efficiency by comparing single- and three-member panels of professional judges who judge the same type of case (a specific offense) in the same period of time.

In addition to our original dataset, we also had the opportunity to include insights coming directly from the judges who were asked to implement the reform. Our findings draw more than a picture of how efficient these types of judicial panels can be: they also shed light on the way these courts work, how judges react to judicial reform, how they cooperate in forming opinions, and which factors they consider to be crucial in terms of court efficiency. Given that the Greek judicial system shares many common characteristics with most civil law jurisdictions, our findings can contribute to a better understanding of similar reforms. They can also provide valuable insights for any jurisdiction with single- and three-member judicial panels.

[1]A different strand of research on the differences between single-member and multi-member judicial panels tends to focus on judicial error (van Dijk et al. 2014).

The rest of this paper is organized as follows: in Section 2 we discuss the notion of efficiency in criminal justice and its connection to the right to a speedy trial; we also describe the situation in Greece at the time of the reform in question. In Section 3, we give more details on the structure of the Greek judicial system and the reform itself. Section 4 presents the data, Section 5 presents the results, and Section 6 discusses the findings and their implications for judicial reforms. Finally, Section 7 concludes.

THE STUDY: BACKGROUND, THEORY, AND REALITY

The significance of this study is not limited to Greece or civil law jurisdictions, where three-member panels are common, and the procedural law tends to follow very similar principles. Courts of Appeal in the United Kingdom and the United States often have cases heard by three judges. Notwithstanding some obvious differences (e.g., some Courts of Appeal only hear points of law), it is still important to keep in mind how replacing three judges with a single judge could affect the efficiency of the proceedings. Before analyzing the data and discussing our findings, it is important to briefly sketch out the significance of efficiency for individuals and their right to a fair trial. Since we are looking at court efficiency at the individual defendant level, our work can shed light on the real-life implementation of the relevant provisions for the protection of this important human right, with a special focus on speed. Some concerns about speedy trials will also be briefly highlighted.

Efficiency: Trends and concerns

Strictly speaking, a swift conclusion to civil or criminal proceedings is merely one component of what we properly understand as an efficient method of delivering justice and, therefore, one way of measuring court efficiency. Our present exercise does not suggest that measures of efficiency which focus on other factors are not useful in their own right. Recidivism, for example, can reveal how effective a given approach or reform is from the viewpoint of crime prevention. It has been used to assess the efficiency of sentencing guidelines (Estelle & Phillips, 2018); the length of prison sentences (Roach & Schanzenbach, 2015); incarceration and probation for drug offenders (Green & Winik, 2010); and pardon (Drago & Galbiati, 2012). Recidivism is a useful tool in the evaluation of a criminal justice system as a whole, provided that we keep in mind its shortcomings, which include, most notably, the undercounting of actual offending and the changes in the nature and severity of the offenses (United Nations Office on Drugs and Crime, 2012). The complexity of this approach emphasizes the need to isolate specific aspects of the criminal justice process in order to reach more

robust conclusions about their efficiency. Focusing on speed is a well-established and reliable way to satisfy this need.

Important as speed may be, there is a justified fear that too great an emphasis on this type of court efficiency can lead to miscarriages of justice (European Commission, 2017). Unfair verdicts can have an effect on the overall efficiency of justice systems (especially criminal justice systems) since the perception of just procedures and outcomes can strengthen people's commitment to the rule of law (Tyler, 2003). A focus on just outcomes also tends to be associated with the system's "moral credibility" (Bowers & Robinson, 2012). Andrew Ashworth's principle of fair labeling makes the point from a legal/criminological perspective: if criminal justice systems are to use evaluative judgments to coordinate human behavior, they need to be able to claim legitimacy or risk to be met with noncompliance (Ashworth, 2009). Interestingly for the purposes of this study, there seems to be a clear link between legitimacy and efficient criminal justice institutions (Lacey, 2012). Naturally, lawyers and criminologists are, like Ashworth, more commonly concerned with the guiding principles of criminal justice or the limits of the criminal law and overcriminalization (Husak, 2007). However, not merely laws in the strict sense but court efficiency itself can, as CEPEJ points out, strengthen or undermine the rule of law. If justice delayed is indeed justice denied, speeding up the process at different stages of justice systems is not merely an efficiency boost but another way to support the rule of law and the institutions which uphold it.

The right to a speedy trial

Proposals for reforms which aim to accelerate judicial proceedings are often met with skepticism on the grounds that justice systems are primarily expected to put in place safeguards in the service of fairness. This is particularly true in the context of criminal trials, since there is so much at stake: the reputations of the persons involved, public safety, the rule of law and, of course, personal liberty. There is more to this objection than the ever-present fear of hasty decisions by overworked magistrates or biased juries, already downplayed by Albert Barnes at the beginning of the previous century (Barnes, 1916). In a sense, this skepticism is the reflection of a distinction between two different functions of criminal justice systems. In Packer's oft-quoted terminology, criminal justice systems focus on Due Process and/or Crime Control (Packer, 1964). The Due Process Model insists on "formal, adjudicative, adversary factfinding processes" (Packer, 1964), in order to minimize the possibility of error. The focus is clearly on the rights of the accused. The Crime Control Model mainly focuses on the efficient handling of as many known criminal offenses as possible and this, naturally, includes their speedy resolution (Packer, 1964). Interestingly, Packer thought that speed "depends on informality" (Packer, 1964). This idea lies at the

core of the conflict between the two systems: the less we focus on procedure, the more efficient the system is. Criminal justice systems have good reasons to dispose of cases fast (including crime control, trust towards the authorities, and concern for the victims). From the defendant's point of view, the matter is rather complex: the right to a speedy trial is part of the general right to a fair trial, which is certainly not reduced to a mere demand for efficiency and affects the enjoyment of other fundamental rights, including the right to liberty (Esser, 2002). In a trade-off between speed and the enjoyment of these rights, the defendant may be better served by the latter. In practice, most jurisdictions combine both models: they try to produce the best possible results in terms of speed, crime control and respect for the rule of law, while safeguarding the accused's rights. Although the effect of the reform in question on the courts' rulings is a legitimate concern (Alysandratos & Kalliris, 2021), it must be noted that, in terms of legislation, nothing changed in terms of the rights of the accused or other aspects of criminal procedure. The only change was in the number of judges on the bench.

These general remarks notwithstanding, one important question remains: what do we mean when we speak of a right to a speedy trial? According to Article 6 (1) of the European Convention of Human Rights:

> In the determination of his civil rights and obligations or of any criminal charge against him, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law.

As we see in Table 1, "unreasonable delays" in the administration of justice constitute almost one fifth of the workload of the European Court of Human Rights ("the Court"). It is not always easy to define what constitutes an unreasonable delay and the Court has taken different views even on relatively straightforward matters. For example, in terms of the actual period in question (the "proceedings"), applicants mostly refer to the entirety of their engagement with the legal system, but the Court has also focused exclusively on the appeal stage (Portington v. Greece). Generally speaking, criminal proceedings begin on the day the person is charged—defined as the day on which the accused's situation was "substantially affected" (Tychko v. Russia). When these proceedings end depends on the provisions of each legal system, but the common criterion is the time of the final decision and its execution, including any appeals available (Erkner and Hofauer v. Austria). As expected, the Court considers the length of proceedings to be relative to each case and has not provided specific timetables for different types of cases. However, it has laid out the criteria for this assessment. These are: the complexity of the case; the conduct of the applicant and the relevant authorities; and what was at stake for the applicant in the dispute (Frydlender v. France). In our study, the criminal charge is possession with

TABLE 1 Share of violations of the European Convention on Human Rights by category

Category of violation	Article	Percentage of cases
Length of proceedings	6	19.51
Right to a fair trial	6	16.87
Right to liberty and security	5	13.21
Protection of property	P1-1	11.51
Right to an effective remedy	13	8.74
Inhuman or degrading treatment	3	8.07
Right to respect for private and family life	8	4.89
Remaining 17 categories	All other articles	17.21

Source: ECHR Violations by Article and State 1959–2018, ECHR Violations by Article and State 2019, authors own calculations. ECHR allocates the cases in 24 categories, some of which belong to the same article.

intent to sell, a serious offense which carries a significant prison sentence. Therefore, the stakes are high for the defendant. In terms of complexity, the cases tried by a single judge are considered relatively simple, especially in terms of evidence (for the significance of the complexity of evidence in judicial errors, see Sonnemans & van Dijk, 2011). Finally, while the conduct of the parties involved (defendant and victim) can affect the speed of the proceedings, our focus here is on the conduct of the authorities.

The Court emphasized the significance of Article 6 for the speed of criminal proceedings in its early judgments. In Wemhoff v. Germany, it stated that the aim of the guarantee for criminal matters in particular is "to ensure that accused persons do not have to lie under a charge for too long and that the charge is determined" (§18). The effect of delays in processing a case on the individual is, understandably, the main concern. In exceptional cases, a delay could be beneficial for the defendant: for example, when she is not remanded in custody, a defendant may benefit from a favorable change in the law (Trechsel & Summers, 2006). At the same time, there is always the question of the effects of the passage of time on evidence. There is the view that it can be a true obstacle to the defendant's effort to mount an effective defense (Stavros, 1993) but Trechsel points out that the same thing can be said—perhaps with greater conviction—about the prosecution (Trechsel & Summers, 2006). Given that the prosecution is commonly required to prove guilt, the latter view is not without merit (although inadequate evidence may not always lead to acquittals—see Sonnemans & van Dijk, 2011). In any case, these remarks remind us that, despite their limited appeal to human rights theorists, public policy goals are often at the core of discussions about the efficiency of justice. Expediting the delivery of justice is not merely a way to respect the individual right to a fair trial but a goal for the community as a whole.

The reality: Delays in the Greek justice system

Greece has been one of the worst performers in terms of unjustifiably lengthy judicial proceedings, according to both the European Justice Scoreboard (European Commission, 2020) and the number of convictions by the European Court of Human Rights. In fact, Greece is one of the countries for which The European court of human rights has reserved a treatment similar to that of "administrative practice." Characterizing the delays in the criminal justice process as an administrative practice results in a particularly swift assessment of the relevant cases for the country concerned. In the strict sense of the term, this policy has only been implemented in the case of Italy. However, in the case of Greece, France and Poland the Court followed a similar path:

> The Court has dealt on many occasions with cases raising similar issues to that in the present case and has found violations of Article 6 paragraph 1 of the Convention.[2]

Between 1959 and 2019, Greece was found in violation of Article 6 with regard to the length of judicial proceedings in 542 cases. Only two states have worse records in this area: Turkey with 607 violations and Italy with 1197 violations. According to the available data for 2019, Greece continues to have one of the slowest justice systems in Europe, with eight violations. It is fourth behind Ukraine, which was found in violation of Article 6 regarding the length of judicial proceedings 35 times, Hungary, and Serbia. Given that the annual average of similar violations for the period 1959–2019 is around 9, the situation in Greece seems to have slightly improved in the previous year, but, despite this progress, it still provides an excellent case for our study (Table 2).

Delays in the administration of justice are a common theme in the jurisprudence of the European Court of Human Rights. During the period 1959–2019, there were 5,884 cases in which the length of judicial proceedings constituted a violation of Article 6 by the Court. This is the largest number of violations by a considerable margin. The picture was different in 2019, with violations of the right to a speedy trial emerging as only the sixth most common category. This improvement can be attributed to several factors, including increased awareness of the problem across Europe, the emergence of new technologies, and some courageous reforms in countries such as Romania (2010), Lithuania (2010), and Estonia (2011). Although states bound by the European Convention of Human Rights have a duty to address these issues in accordance with the requirements of Article 6, the pressing question is how much governments can do when the available resources are scarce.

[2]Example from Czech v. Poland, §45. For a similar treatment of applications against Greece, see Aggelopoulos v. Greece, §§17–18; Tsiotras v. Greece, §§14–15.

TABLE 2 Offenders of Article 6, length of proceedings violations

Country	Number of cases	Percentage of total cases
Italy	1197	20.34
Turkey	607	10.32
Greece	542	9.21
Poland	441	7.49
Ukraine	429	7.29
Hungary	329	5.59
France	284	4.83
Slovenia	263	4.47
Slovak Republic	208	3.54
Russian Federation	205	3.48
All other countries	1379	23.44

Source: ECHR Violations by Article and State 1959–2018, ECHR Violations by Article and State 2019, authors' own calculations.

The point is even more pressing given that the Court has rejected governmental arguments which claim that the national courts cannot deal with their workload because of inadequate staffing or an insufficient number of courts. Member States are duty-bound to organize their legal system so as to ensure compliance with the requirements of the Convention (Salesi v. Italy). Given that the creation of smaller judicial panels is an economical way of accelerating the delivery of justice and the efficiency of the courts, a study of a relevant reform in Greece can provide valuable evidence in the pursuit of viable solutions, with benefits for both the individual and the community. With several countries facing fiscal constraints (including a series of cuts already affecting the Criminal Justice System in important jurisdictions such as England and Wales), the question is now timelier than ever: can single-member criminal courts increase efficiency? If the answer is yes, cases could be processed faster with no significant increase in terms of the overall budget, despite the inevitable extra cost of making more courtrooms available (in terms of clerical assistance, security, and maintenance).

THE REFORM

In an ideal experiment aiming to measure the efficiency of three- and single-member panels, we would have (a) random allocation of cases; and (b) random allocation of judges to each type of panel. The reform we are evaluating satisfies the second point since judges are assigned to panels via a lottery. We argue that

it also largely satisfies the second point thanks to quasi-random differences in the timing of the delivery of the subpoena. It is important to note that cases are tried in parallel by both types of panels. Hence, we do not have a typical regression discontinuity research design, but rather a design where the discontinuity affects the assignment to treatment. In the following paragraphs, we provide an overview of the reform with a focus on these two elements.

In March 2012, the Greek government passed a law reforming the judicial system. The law came into effect a month later. Before we take a closer look at the reform itself, a few remarks about the system itself are in order. Greece has an independent judiciary, as the Constitution fully endorses the principle of the separation of powers. Judges are not elected, and they are all professionals who work full-time. They are not allowed to engage in other professional activities, with the exception of academic posts and governmental committees. They have their own disciplinary procedures and promotion panels. The government only appoints the Chairs of the three High Courts of the land. All Greek judges are lawyers and, since 1995, they must have successfully attended the National School of Judges. In criminal courts, the judges who rule on the case have no involvement with the investigation which took place before the trial. A member of the prosecution service sits on the bench but has no vote in the verdict (and no previous involvement with the case at the pretrial stage). She is expected to be impartial and makes a recommendation to the Court based on what she concluded during the hearing. Another important feature of the Greek judicial system is that plea bargains are not allowed.

The reform in question established single-member judicial panels to replace three-member panels for certain felonies in the long term. In the short term, cases for which a subpoena had been issued before April 2012, would be tried by a three-member panel whenever the trial was to take place. Cases prosecuted under the same statutes, for which a subpoena was issued in or after April 2012, would be tried by the newly established single-member panels. We submit that the assignment of cases to panels based on a cut-off date is quasi-random and satisfies the criterion regarding the allocation of cases to panels. In the Greek system prosecutors are not elected, nor are they evaluated based on their prosecutorial record, unlike for example in the United States. Thus, they had no reason to delay the issuing of subpoenas in anticipation of the reform. In addition, Alysandratos and Kalliris (2021) show that there is no indication of changes in criminal activity related to drug trafficking, which is highly relevant to the offense on which we focus in this study. Therefore, the only criterion for assignment to either type of court is the timing of the issuance of the subpoena, before or after the cut-off date. This, we claim, is as good as random. Because judicial panels are usually oversubscribed, cases are routinely postponed to a later date. This means that in our sample we have collected data from cases that were tried during the same period, at the same court, by the same randomly assigned presiding judges.

Our focus on the offense of possession of drugs with intent to sell is grounded on the need to explore cases which can be reasonably expected to be as similar as possible. The relevant law (4139/2013, especially articles 20 ff) describes a basic offense and several aggravated ones. In this study, we focus exclusively on the basic offense. The most important advantage of this approach is that, as already suggested, the crime in question rarely presents the judge with complex problems of proof. The evidence required is mainly a specific quantity of drugs found in the possession of the defendant. This allows us to assume that any noticeable changes in the way these cases are tried cannot be attributed to their complexity or to a high degree of subjectivity as far as the assessment of the evidence is concerned. This is in line with the rationale of the reform: simpler cases were moved into the jurisdiction of the new single-member panels, while more complex cases remained in the jurisdiction of three-member panels. Any conclusions drawn from this study must necessarily take this factor into account: these cases were considered appropriate for a single judge to decide.

Regarding the second criterion, judges are randomly allocated to panels via a lottery. They are not allowed to choose cases and recusals are rarely granted. Moreover, the same judges are either randomly drawn to preside over a three-member panel or to try cases on their own in a single-member panel. This feature allows us to estimate the efficiency of each panel, controlling for the individual characteristics of the presiding judge. In other words, we can tell if the same presiding judge is more or less efficient when issuing decisions on her own or with two junior colleagues. We note that we do not observe in our dataset who those two junior colleagues were. Taken together, those two features of the reform and the Greek judicial system mean that we have plausible exogenous variation in the assignment of both judges and cases to types of panels. In turn, this allows us to provide plausible estimates of the causal effect of the two types of panels on the time required to issue a decision.

DATA AND METHODOLOGY

The answer to the question "are single-member courts a good response to delays in the justice system?" first relies on an assessment of their efficiency. Our primary goal is to present this assessment based on data collected from the Greek courts. However, as already pointed out, our conclusions also require a good understanding of how three-member courts work—that is, how they carry out their duties and how this process differs from that normally associated with a single judge. Furthermore, each jurisdictions exhibits unique characteristics, which possibly affect not only the systemic workings of courts, but, conceivably, the way judges work and think. To explore these factors and shed light on what our dataset reveals, we analyze responses to a survey distributed to Greek

judges. Their input allows us to test our theoretical analysis and better appreciate potentially important factors such as cooperation, deliberation, and the division of tasks.

In the assessment of the efficiency of courts, speed has been a common and reliable measure. There are different measures of efficiency we can employ to determine how fast a justice system operates. In its work, CEPEJ relies on the concepts of Clearance Rate and Disposition Time. Clearance Rate is "a simple ratio, obtained by dividing the number of resolved cases with the number of incoming cases, expressed as a percentage" (European Commission for the Efficiency of Justice, 2016). Disposition Time is an indicator that "compares the total number of pending cases at the end of the observed period with the number of resolved cases during the same period and converts this ratio into a number of days" (European Commission for the Efficiency of Justice, 2016). Both methods of measuring efficiency are closely related to what lawyers commonly describe as "the length of judicial proceedings." As suggested by the jurisprudence of the European Court of Human Rights, the length of judicial proceedings is a crucial indicator of the extent to which states protect the right to a fair trial. It is, therefore, important to focus, as accurately as possible, on how fast courts process cases at the individual level. In this paper, we employ a measure of efficiency, which better illustrates court efficiency from the perspective of the individual defender. Our main goal is to determine whether single-member judicial panels expedite the delivery of justice.

In order to answer our research question, we collected data from two sources. First, we use data from the criminal courts of Athens. A research assistant, who is also a qualified and experienced lawyer, manually collected the data from the court's on-site terminal for the universe of drug trafficking felonies, tried between June 2012 and January 2014. The court's database contains an indication that a case concerned offenses under the Drugs Act, which our research assistant used to identify cases indicted under the Drugs Act. The court's database contains no more details regarding the specific offense. Our research assistant recorded for each observation the information available on the court's database, which, among other variables included: the day of the trial; the day on which the decision was issued; the name of the presiding judge on the panel; the verdict of the case. The sex of the presiding judge can be readily inferred since ambiguous names are not common in Greek and is useful in investigating potential gender effects. For data protection reasons our research assistant did not record the name of the defendants. However, the names of Greek defendants are written using Greek letters on the court's database, hence our research assistant added an indication regarding the nationality of the defendant. In total, we collected 1723 observations. We exclude cases that carry a life sentence, and, therefore, are not eligible to be tried by single-member panels. We do this, as already mentioned, to ensure that we are measuring the efficiency of the two types of panels in cases of comparable complexity. Without this

provision, our results may be confounded by inherent differences in the type of cases adjudicated. We also exclude five cases for which the issuing date was prior to the day of the trial. This is clearly impossible and was likely caused by a clerical error in the database of the courts. Including these cases does not alter our results. This filtering of the data leaves us with 1463 comparable cases. Table 3 presents the descriptive statistics of the comparable cases and of the judges who tried those cases.

The level of precision of our dataset allows us to use the time between the discussion in court and the issuing of the written decision as a measure of efficiency. This measure may be considered indicative of the productivity of each type of panel.

Finally, we distributed a survey to Greek judges. Our survey records how the judges themselves assess the creation of single-member panels, in terms of expediting the delivery of justice. Our survey was administered between December 2018 and April 2019. It was distributed with the help of the Greek Union of Judges and Prosecutors who sent an email with a link to the survey to all their members, thus ensuring that all participants are active judges. According to the most recent data from the Ministry of Justice at the time of the survey, there were 1293 active judges. We were able to collect 142 responses out of 1293 judges. This means that our response rate was approximately 11%. Given that we distributed an online form via e-mail, our respondents are likely to be younger and more accepting of reforms. Therefore, we are hesitant to claim that the findings are representative of the Greek judicial body. In addition, respondents in nonincentivized surveys may have a motive to answer strategically. Even though we cannot exclude this in our case, we note that our survey was not used, nor intended to be used, as an input to policymaking or lobbying regarding judicial reforms, therefore there was little reason for the

TABLE 3 Descriptive statistics

Defendants	Single-member panels	Three-member panels	Total
Comparable cases			
Number of cases	633	830	1463
Prob. of conviction (%)	92 (0.275)	82*** (0.385)	86 (0.345)
Duration (in days)	12.6 (22.3)	12.9 (15.5)	12.7 (18.7)
Presiding Judges			
Total number	47	86	98
Proportion female (in %)	47 (0.50)	70** (0.46)	65
Cases per judge	13.5 (15.32)	9.65 (6.47)	14.9 (12.3)

** and *** indicate significant mean differences between types of judicial panels at the 5% and 10% significance levels. The standard deviations are reported in the brackets.

respondents to expect that their responses would affect public policy in general and their personal workload in particular. Despite the aforementioned concerns, the responses provide a rare glimpse into the mind of the judiciary. Descriptive statistics regarding our sample can be found in Table A4 (Appendix A).

RESULTS

Time to issuance of decisions

First, we use our novel sample of data from drug related cases to study whether single-member panels take more time to issue a decision.[3] Our dependent variable is the time between the day of the trial and the day the decision was issued, measured in days. Because it is possible that either the judges or the clerks file the decisions in bunches, we repeated our exercise with the interval measured in weeks (Figures A1 and A2). The results remain unchanged. Single-member panels take 12.6 days on average to issue a decision, whereas three-member panels take 12.9 days. The difference is not statistically different from zero (Wilcoxon test, p-value = 0.608), meaning that there is no discernible difference between the two types of panels

In Table 4, we examine the time it takes to issue a decision in each type of panel controlling for factors that may influence the results. "Three-member panel" is the main variable of interest. We include controls for the nationality of the defendant, the sex of the presiding judge and the differential effects between male and female presiding judges in three-member panels. Finally, we control for the time trend. The first column is a simple linear regression. In it we find that three-member panels are taking the same number of days to issue a decision as the single-member ones. The estimated difference of 1.3 days is not statistically different from zero. We find no evidence in Column (1) to suggest that female Presiding judges take more or less time than their male colleagues or that they are affected differentially by the single-member panels. Similarly, we find no evidence of differences in the time it takes to issue a decision related to a foreign defendant or depending on the verdict (guilty or not-guilty) of the trial. The latter is perhaps surprising if one expects that judges may take more time to issue a decision which finds the defendant guilty. Nevertheless, we find no support for that hypothesis in our data. In Column (2), we control for the characteristics of the presiding judge using fixed effects. This way our results account for unobserved characteristics of the presiding judge that may influence the time it takes to issue a decision and that could undermine the validity of the results of Column (1). We also use month fixed effects to account for month-of-the-year

[3]We removed from our sample five cases for which the recorded date of issuance of a decision was before the date of the hearing.

effects. In this regression, the three-member panels still require the same time to issue a decision with the single-member ones. Similarly, to Column (1), we find no evidence for gender or nationality effects. We find some evidence that over time decisions require more time to be issued. Finally, in Column (3) we include only the judges who have tried more than the median number of cases in our dataset. We do so to account for experience effects, as suggested in Iverson et al. (2020). Again, we find no statistically significant differences between the two types of panels. In Iverson et al. (2020), the learning curve for the judges, which is the reason leading to longer proceedings, lasted between 1 and 4 years. In our context, presiding judges spend more years as junior judges, participating in three-member panels, before being promoted. Thus, the lack of a difference in Column (3) was expected. Taken together, the three columns show that individual judges take as much time as three judges to issue a decision. This finding is perhaps surprising, but it is in line with findings in experimental economics. Blinder and Morgan (2005) show that in their experiment individuals were not slower in coming to a decision than groups. Because of some imbalances in the samples tried by the two types of panels, we repeat the regression of Column 1 in Table A3 using a coarsened exact matching estimator,

matching on the gender of the presiding judge, the ethnicity of the defendant, and the verdict of the trial. This exercise also results in coefficients that are not statistically different from zero. Moreover, starting in April 2013, 1 year after the reform that instituted single-member panels, a new, more lenient law, concerning drugs offenses came into effect. Since the law was more lenient, every case tried after it took effect, was tried according to the new provisions, regardless of when the offense was committed or when the subpoena was delivered. Hence, both panels were trying cases at the same time under the same provisions of the law. Nevertheless, in Table A1 and in Column 2 of Table A3, we include variables indicating when the lenient law took effect to account for its effect as well as an interaction with the type of panel to account for potential differential effects in the time to issue decisions in the two panels.The results remain unchanged.

Survey evidence

Finally, we present results from our original survey of Greek judges. As already mentioned, the survey was distributed via the Greek Union of Judges and Prosecutors, thus ensuring that all respondents are registered members of the judiciary. Our results in the previous section provide strong evidence that there are no differences in the time it takes to issue decisions between the two panels. However, it is not imminently clear why that is the case. The responses to the survey reveal how the judges themselves assess the factors affecting their

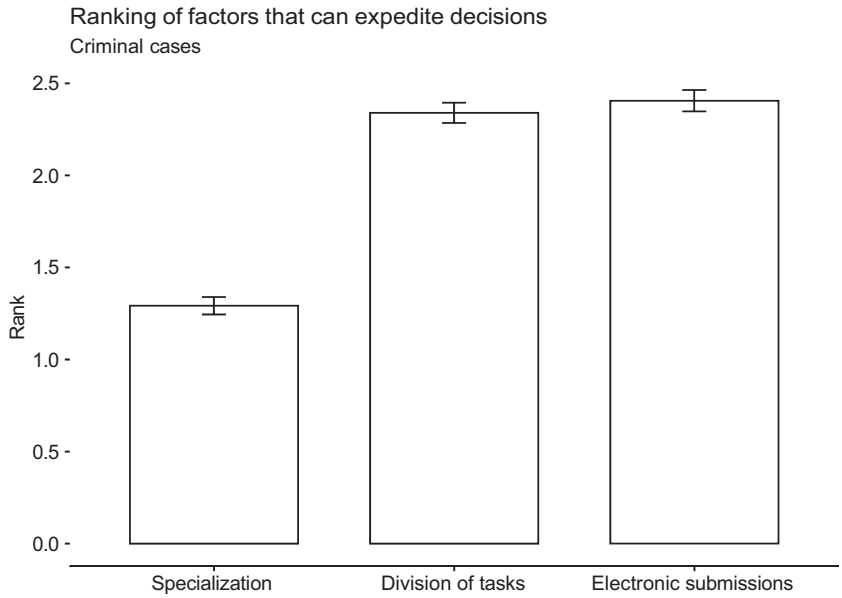

FIGURE 1 Evaluation of factors with respect to their potential to expedite the issuing of decisions in criminal cases. A lower ranking is better.

productivity, thus shedding some light on the inner workings of judicial decision making. Therefore, they help us understand why there was no difference in the time required to issue a decision in our study of specific drug-related cases.

The first question in our survey asked the judges to "rank from the most to the least effective the following factors with respect to their potential in expediting the issuing of decisions in criminal cases." We listed three factors: specialization, division of tasks among the judges on a panel and electronic submission of documents. Specialization has been found to play a major role in expediting the issuance of decisions in bankruptcy courts in China (Li & Ponticelli, 2021). Division of tasks could be an advantage of multi-member panels, especially in relation to single-member ones. Finally, electronic submission of documents refers to improvements in the administrative process. More specifically, the use of technological means can reduce the time required to access and assess documents and evidence. Figure 1 presents the average rankings for each factor. It is important to remember that a lower score is better in this case. Specialization is ranked as the most important factor by most judges and has an average rank of 1.29. This finding is in line, albeit in a very different context, with the results in Li and Ponticelli (2021). We say more on this finding in the discussion that follows. Division among the judges on a panel has an average rank of 2.34. The

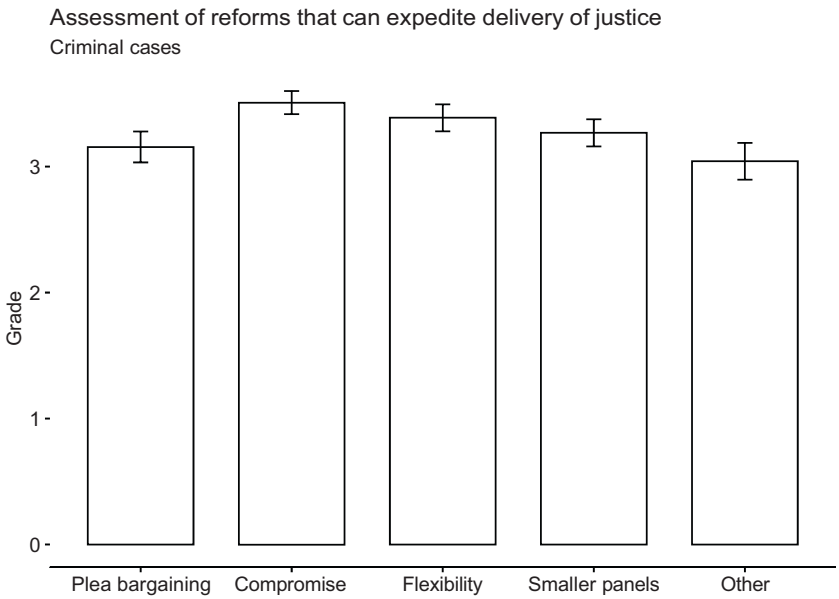

FIGURE 2 Assessment of reforms regarding their potential to expedite the delivery of justice in criminal cases. A higher grade is better.

average rank for the electronic submission of documents is 2.41. The distribution of the ranking of specialization (Figure A3) is statistically different from the distribution of division with other judges[4] (chi-squared test, p-value = 0.000) and electronic submission (chi-squared test, p-value = 0.000). We find no statistically significant difference between the electronic submission and the division of tasks (chi-squared test, p-value = 0.3577). These results mean that division of tasks and electronic submission are assessed as equally important by the judges in our sample and that specialization is by far ranked as the most important factor. With respect to our findings from the drug-related cases, this helps explain the lack of differences with respect to the time between the trial and the issuing of a decision between the single- and three-member panels. Either judges feel that the division of tasks does little to speed up the delivery of justice because this has been their shared experience; or they fail to see the potential benefits of this kind of cooperation, thus effectively working alone to divulge their duties, including the issuing of judgments.

[4]A three-way comparison of the distribution of the rankings of specialization, division with other judges and electronic submission also finds a statistically significant difference (chi-squared test, p-value = 0.000), meaning that the ranking of all three factors do not come from the same distribution.

TABLE 4 Time between discussion in court and issue of decision between single- and three-member panel

	OLS	Fixed effects	Experienced judges
Three-member panel	−1.305	1.382	2.882
	(2.272)	(2.884)	(2.815)
Female presiding judge	0.469		
	(2.554)		
Foreigner defendant	−2.039	−1.687	−1.630
	(1.951)	(1.975)	(2.213)
Guilty verdict	0.264	0.837	1.011
	(1.612)	(1.376)	(1.492)
Three-member panel × female presiding judge	1.764	−3.122	−3.958
	(3.002)	(6.469)	(6.896)
Time trend	0.034	0.143**	0.149**
	(0.036)	(0.061)	(0.063)
Constant	12.044*** (3.360)		
Fixed effects	No	Judge and month	Judge and month
R^2	0.006	0.196	0.184
Observations	1463	1463	1253
Clusters	98	98	58

Note: Time until the issuance of a written decision in days is the dependent variable. Column 1 presents results from an OLS regression. Columns 2 and 3 incorporate judge and month fixed effects. Column 3 only includes Judges who have tried more than the median number of cases in the sample. Standard errors are clustered at the Judge level.
*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

In the second question we asked the judges to "grade the following reforms with respect to their potential to expedite the delivery of criminal justice." We provided four concrete options: plea bargaining, compromise in court, greater flexibility with respect to the procedure in the court for some crimes where incarceration is not an option and judicial panels with fewer judges or one judge. Plea bargaining is a means to limit the number of cases before they get to the court. The second and third options refer to ways to speed up the process either when the parties involved agree on an outcome (compromise) or when the stakes are relatively low (flexibility). The last option refers to a structural reform, in the spirit of the reform discussed here. We also provided an "other" option, which provided the opportunity to refer to any reform our participants

deemed appropriate. We asked the respondents who chose the "other" option to clarify what they mean by "other." A total of 41 of the respondents, almost 29% of the total sample, mentioned some form of decriminalization. Grading was done on a scale from "very low ability," to which we assign a numeric value of 1, to "very high ability," to which we assign a numeric value of 5 for our analysis. Figure 2 presents the average grade for each reform. Compromise has the highest average grade with 3.51 and flexibility is second with 3.39. "Other" has the lower average of 3.04 followed by plea bargaining with 3.15. Smaller or single-member panels are in the middle with an average of 3.27. All these potential reforms are evaluated positively by the judges, although none of them is receiving a grade above 4, which represents a high ability to expedite the delivery of justice in criminal cases. In pairwise comparisons of the smaller panels' options with the other proposed reforms, we do not find any statistically significant difference with compromise (signed rank test, p-value = 0.0952), flexibility (signed rank test, p-value = 0.4483), other (signed rank test, p-value = 0.1563), or plea bargaining (signed rank test, p-value = 0.517). This finding suggests that, in the opinion of the judges, any one measure has limited ability to significantly improve the situation (Figure A4). This seems to point to a need for deeper and more diverse reforms.

DISCUSSION

Efficiency and justice

Our study provides clear evidence that single-member panels can be as fast as three-member ones. In other words, one judge takes as much time as three judges to issue a judgment, including formally releasing it. This finding directly suggests that the reform was successful and that single-member panels can accelerate the delivery of criminal justice, at the very least by allowing two judges to perform other duties. This is particularly promising for countries which, similarly to Greece, do not possess the fiscal means to achieve this goal by hiring judges or increasing funding. Given that many jurisdictions rely—especially at the appeal level—on three-member panels, it also provides an alternative to countries wishing to improve the overall efficiency of their judicial systems by redirecting funds and personnel to other functions. An overview of several European jurisdictions (Appendix B) reveals that many countries that do well in terms of efficiency in their justice systems, such as Germany, Ireland, Belgium, and Switzerland (European Commission for the Efficiency of Justice, 2020), tend to employ single-member courts with professional judges. This suggests that there is no prima facie reason for our findings to be interpreted as a phenomenon exclusively observed in Greece. Having said that, it remains important to remember that speed is only part of the notion of a right to a fair trial, as

described in most national and international human and political rights instruments (European Commission for the Efficiency of Justice, 2020).

This means that we must be aware of the fact that, despite the several benefits of an efficient justice system, these benefits must be weighed against the other elements of what we commonly understand as a "fair trial." One way to ensure that these elements will not be overlooked is by looking at justice in its procedural sense, which mainly reflects adherence to rules (for the concept of procedural justice, see Thibaut & Walker, 1975; for its significance for criminal justice in particular, see Tyler, 1990; Tyler & Huo, 2002). The underlying idea is that, by staying loyal to procedural rules, justice systems are more likely to provide the most appropriate response to a given situation, conflict, or offense. The point is more often made in the context of organizational justice (see Ambrose & Schminke, 2009) but it is also commonly employed in the context of criminology and the study of criminal justice systems and the law in general (Solum, 2004). Going back to Packer's analysis (Packer, 1964), the main concern seems to be that speed depends so much on "informality" that proper procedure may be impossible to maintain, if efficiency is what takes precedence. Our work suggests that single-member courts can improve efficiency with no obvious injury to any procedural rules, given that the procedure (including the rights of the defendant) was exactly the same and only the number of judges changed.

In terms of more substantive understandings of justice, providing an accurate account of the actual quality of the judgments issued by single-member courts is not among the goals of this paper. It is, however, a valid concern, as individuals have been known to reach decisions in ways that differ from those of groups. One good omen is that working on more cases at the same time (a possible side-effect of single-member courts) does not seem to affect the quality of the judgments, commonly assessed by how many of them are reversed on appeal (Coviello et al., 2015). The reform examined here can provide some evidence regarding another possible measure of "fairness," namely consistency in judgments issued in very similar cases, during the same period of time. Alysandratos and Kalliris (2021) look at the effect of the reform on the verdict and the length of the sentence. They find that single-member panels are significantly more likely to convict defendants, even after controlling for numerous other factors that may influence the effect. Furthermore, they find support for the hypothesis that judges are less confident when they decide on their own and see convicting a potentially innocent defendant as a lower cost mistake than acquitting a guilty one. This finding indicates a possible lack of consistency. The same defendant would have a significantly different chance of being convicted not because the facts of the case or the legal framework differed, but because of when the subpoena was issued (and, consequently, how many judges sit on the bench). These points suggest that our results must be interpreted without ignoring the reform's effect on the verdicts themselves.

Interpreting the findings

Our findings provide evidence that three-member panels are not more efficient than single-member ones. However, an assessment of the reasons behind this result requires opening the black box of the judicial panels' inner workings. Findings from our survey suggest that division of tasks does not seem to take place in three-member panels. This appears to be the most obvious interpretation of the judges' low appreciation for this factor as a tool for the acceleration of the delivery of justice.[5] Alternatively, whatever division of tasks does take place may not produce good results in terms of efficiency, hence the judges' low ranking of this factor. This is a prima facie counterintuitive finding: for lawyers, everyday experience dictates that more judges are needed for complex cases and this should be expected to produce better results (for examples of this perception see Baas et al., 2010; Mori, 2011—but with reports of doubts about the efficiency of multi-member panels). Our results show not only that single-member courts are more efficient in cases of very similar complexity but that judges do not seem to value sharing the load with their colleagues as well. A potentially important point is that judges in Greece are not elected. They are career judges, whose progress exclusively depends on their performance. This may result in a tendency to produce judgments with little or no originality. Such an interpretation is supported by the fact that the Greek legal system is based on statutory law, which commonly requires a more legalistic, if not formalist, approach. These factors may contribute to a less creative process of deliberation, aiming to reach unanimous decisions which satisfy the formalist approach. Given that there is no politics involved (at least not in the sense that judgments are consistent with each judge's political affiliation, as is the case in some jurisdictions—see Posner, 2008), it may make sense for Greek judges to do all the work on their own: the result is expected to be the same anyway.Even if the lack of trust in the division of tasks suggests a lack of trust in cooperation itself

on the part of judges, working in three-member panels can still be beneficial. Observing how more senior judges handle cases is a good opportunity for junior judges to learn the ropes and gain experience. This is especially true if the presiding judge is particularly experienced, as is often the case. Single-member panels run the risk of having judges with little experience, leading to problems akin to Iverson et al. (2020). Their study of bankruptcy cases finds that the cost of judicial inexperience can be quite high (inexperienced judges needed 19% more time than the rest of the judges). Three-member panels can work as a training ground for junior judges and, ultimately, improve their efficiency in the long run. One simple solution to this potential negative effect is to appoint experienced judges

[5]We asked the judges to evaluate the division of tasks relative to other proposed reforms. Strictly speaking it shows how much the respondents appreciate the division of tasks relative to other reforms. We argue that this is relevant since policymakers consider reforms comparatively to each other and the alternatives suggested in our question were the most common ones in the literature

to single-member courts and ensure that all junior judges spend some time on the bench with senior judges in three-member panels. There is an obvious trade-off to consider, since single-member panels are more efficient and maintaining a number of panels with three or more judges is expected to decrease efficiency. A balanced approach appears to be the most reasonable path in this respect.

According to our survey, judges believe that specialization is a very important factor. Li and Ponticelli (2021) have a similar finding in bankruptcy courts in China. In this context, it is important to keep in mind that specialization may acquire different meanings depending on the personal experience of each judge and the prevalent methods of legal interpretation. In our sample of cases from the courts of Athens, we find the same effect when we look exclusively at the most experienced judges (i.e., those who were on the bench in more cases in our dataset). One possible explanation is that perhaps the judges in our sample do not have true specialization in mind but rather experience in particular types of trial or offense. Senior judges possess this type of specialization from experience and, therefore, feel that they already had sufficient skills to handle serious offenses.

This interpretation is further supported by the aforementioned fact that most European judges tend to be "legalists" (Posner, 2008). A general theme among legalists is the tendency to (believe that they) simply "apply the law," that is, the legal rules—in its "literal" sense with limited scope for interpretative methods which focus on principles (Dworkin, 1978, 1986) or references to different aspects of natural law (Finnis, 1980; Fuller, 1964). This observation does not ignore the obvious fact that, even the most formalistic among judges, must, inevitably, engage with policy concerns. It rather suggests that the judges in our sample may understand "specialization" as a learning process of implementing the same rules, to similar cases, in a similar, almost methodical, manner. Another interesting point is that Greek judges (and lawyers in general) often resort to the "will of the legislator" as a powerful interpretative tool (a form of originalism that is also common in other jurisdictions, such as the United States). It is, therefore, likely that by "specialization" the judges who participated in our survey mean "more time judging specific types of cases" rather than further education and expertise in the area of law in question. However, there is a clear appreciation of the benefits of specialization and, therefore, this may be a promising avenue for policymakers to explore. The process of acquiring the level of confidence judges could have in mind may be accelerated by a combination of further education and in-court experience. The latter seems to require the existence of multi-member panels, where junior judges can acquire the necessary experience in order to be more productive when sitting on their own.

Finally, there may be limits to the ability of any one reform to significantly expedite the delivery of justice in the long term. Judges seem to think so. Those who participated in our survey appear convinced that isolated reforms are unlikely to change the picture dramatically. The fact that so many of them chose

to identify decriminalization as a valuable tool for accelerating the delivery of criminal justice reveals the pragmatism of those who tackle the problem in the field: less cases fed into the system usually means that more cases will come out of it in any given period of time. An alternative explanation is that this response reflects the judges' personal self-interest for lighter workloads, but, as already mentioned, there was no reason for our respondents to believe that their answer would make a difference in this respect. Although overcriminalization is a common problem in many jurisdictions, reforming penal codes (and amending the relevant statutes) is a long process and not one without political implications. There is also the possibility that judges exaggerate in their assessment of overcriminalization, as well as a possibility that lightening their load will not necessarily improve their efficiency. A known effect of a lighter workload is that judges tend to dedicate more resources to each case (Engel & Weinshall, 2020). This could lead to the faster processing of cases (Gomes et al., 2016), assuming that the judges are mainly concerned about doing a good job (Engel & Zhurakhovska, 2017). Of course, doing a good job may also mean spending more time on a case. This approach would not increase efficiency but would, conceivably, improve the quality of decisions. On the other hand, if judges are interested in minimizing the effort required to process each case (Beenstock & Haitovsky, 2004; Cooter, 1983; Posner, 1993), it should be expected that reducing their workload will motivate them to use some of their extra time for leisure. If adding more single-member panels means that any given judge will be required to handle an increased workload, the long-term effects of this policy may be different from those reported in this study.

CONCLUSIONS

In this paper, we looked at a reform in the Greek Criminal Justice System. The aim of the reform was to accelerate the delivery of justice and the means used to meet this challenge was the introduction of single-member courts. By using the random assignment of judges to panels and plausibly quasi-random assignment of cases to panels, we had the unique opportunity to study the efficiency of single-member judicial panels in a near-ideal setting. To this end, we collected original data from the courts of Athens. To make better sense of our findings and understand the inner workings of judicial panels, we conducted a survey in which Greek judges paint a picture of how Greek courts work and give their views on what would make them more efficient. In the absence of similar studies, this paper provides a much-needed description and analysis of court efficiency in general and the efficiency of single-member judicial panels in particular.

The findings of this study suggest that the introduction of single-member courts can accelerate the delivery of criminal justice. They are as efficient and

do not take more time to formally issue a decision. Directing parts of the workload to single-member courts (especially cases which are not particularly complex) can improve the efficiency of a Criminal Justice System without hiring more judges (although more resources may be needed, most notably additional rooms for the trials). Our survey reveals that judges do not consider cooperation and the division of tasks particularly valuable, and this may explain, especially for courts of the kind studied here, our results. On the contrary, specialization and decriminalization appear to be popular approaches, as judges consider them capable of increasing the efficiency of criminal courts.

Our findings can inform public policy when court efficiency is the goal and single-member courts are a possibility. This includes most jurisdictions. One point of interest for future research is the means which can be employed to reduce inconsistency in the rulings of single-member panels. Long-term observation across several jurisdictions will reveal whether one judge tends to rule differently from three judges and to what extent this is a problem for the rule of law and the rights of defendants. If this is the case, proper safeguards may—or may not—be available, making this policy choice only suitable for the jurisdictions that can put these safeguards in place. Another important factor to be considered is the age and experience of judges. Due to the nature of the Greek judicial system, the judges who ruled in the cases we studied were experienced but relatively young. Perhaps older judges would respond differently to the challenge of sitting alone on the bench. In terms of the quality of the rulings produced by single-member courts, it would also be beneficial to look at the percentage of successful appeals for single-member panels and multi-member ones, especially since successful appeals can cause more delays in the long run.

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DATA AVAILABILITY STATEMENT

Data necessary to replicate the results of this article are available upon request from the corresponding author.

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APPENDIX A

Table A1 presents regressions on the time to issue a decision for each panel. In those regressions we have included the variable "Lenient Law" as a dummy variable to indicate whether the decision was taken when a new law on drugs was in effect. We also include an interaction term with the type of panel to evaluate the presence of heterogeneous effects. The findings are not affected. There is no evidence of differences between the two types of panels.

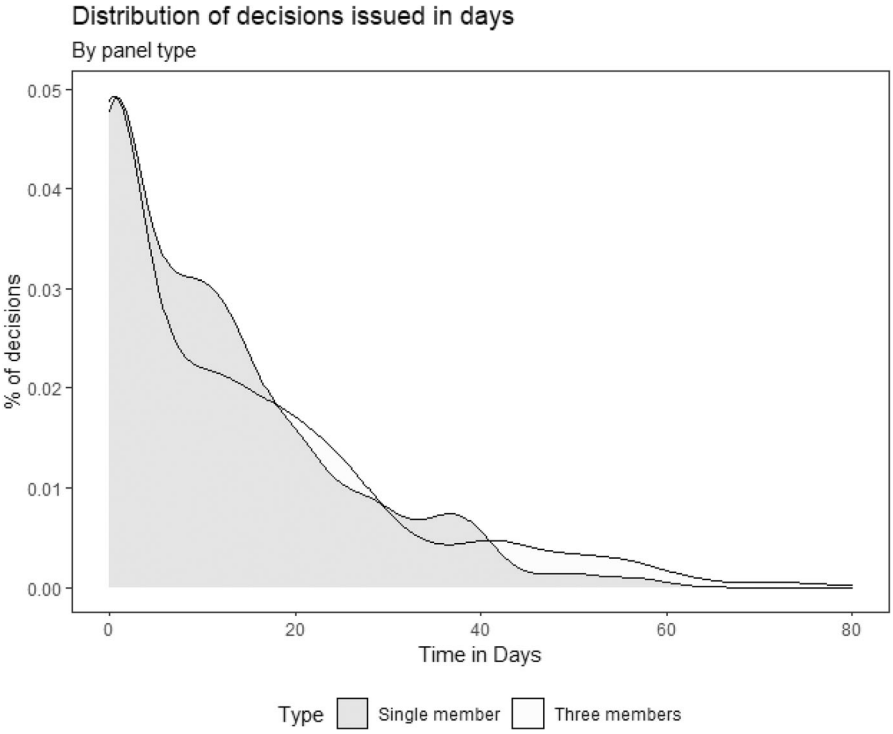

FIGURE A1 Distribution of time between trial and issuing of decision by panel type. The time is measured in days.

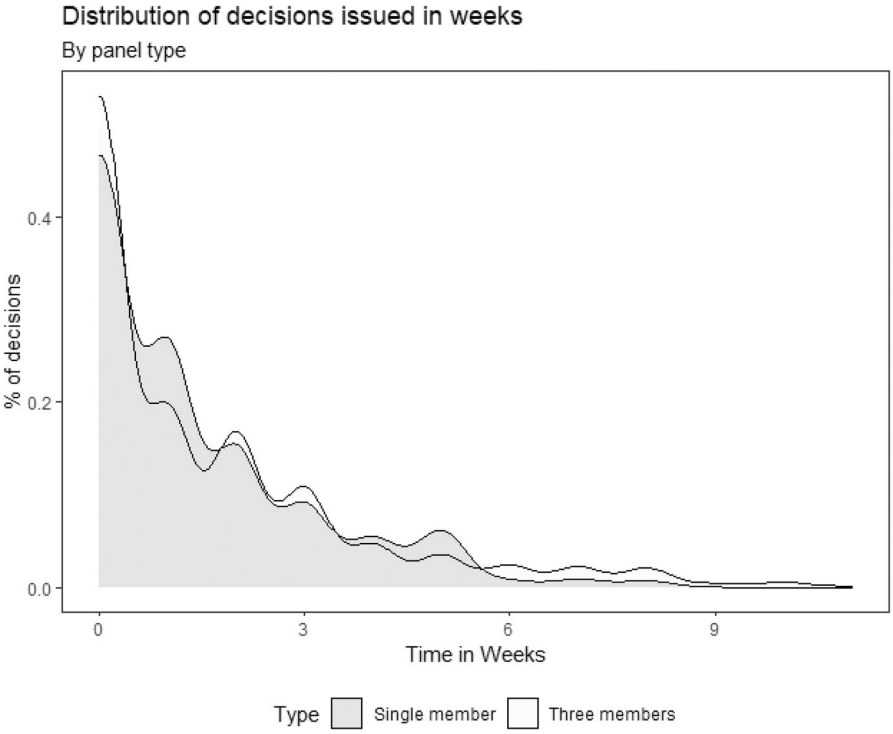

FIGURE A2 Distribution of time between trial and issuing of decision by panel type. The time is measured in weeks.

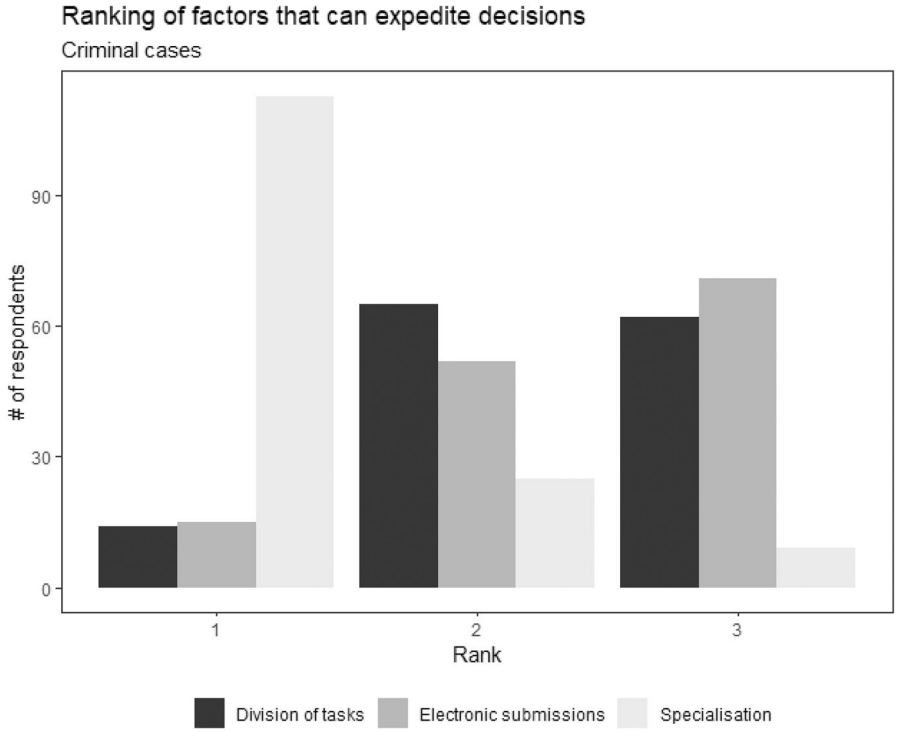

FIGURE A3 Ranking of factors that can expedite the issuing of decisions in criminal cases. This figure presents the distribution of ranks for each factor. A lower ranking is better.

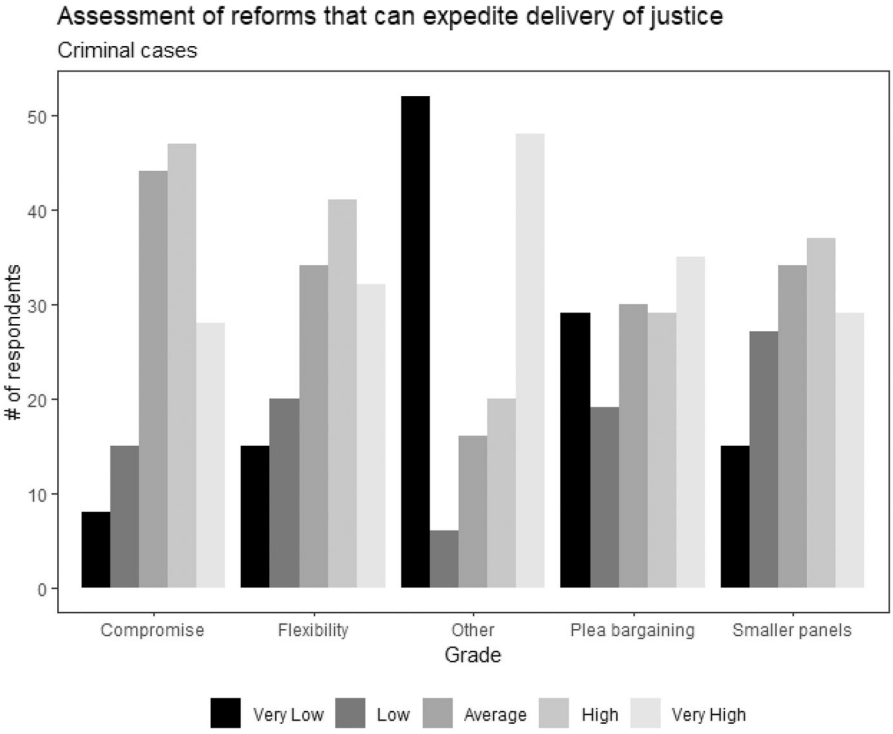

FIGURE A4 Distribution of grades of reforms regarding their potential to expedite the delivery of justice in criminal cases

TABLE A1 Time between discussion in court and issue of decision between single- and three-member panels

	OLS	Fixed effects	Experienced judges
Three-member panel	−2.615	−0.356	0.830
	(3.543)	(5.310)	(5.407)
Female presiding judge	0.763		
	(2.474)		
Foreigner defendant	−2.119	−1.925	−1.865
	(1.977)	(2.013)	(2.263)
Lenient law	2.937	63.521**	62.093*
	(3.985)	(30.261)	(31.043)
Guilty verdict	0.253	0.844	1.054
	(1.601)	(1.318)	(1.437)
Three-member panel × female presiding judge	1.992	−1.566	−2.421
	(3.082)	(6.266)	(6.732)
Three-member panel × lenient law	1.755	1.122	1.476
	(3.290)	(4.223)	(4.318)
Time trend	−0.039	−1.091*	−1.061*
	(0.073)	(0.563)	(0.583)
Constant	13.889*** (3.807)		
Fixed effects	No	Judge and month	Judge and month
R^2	0.010	0.199	0.186
Observations	1463	1463	1253
Clusters	98	98	58

Note: Time until the issuance of a written decision in days is the dependent variable. Column 1 presents results from an OLS regression. Columns 2 and 3 incorporate judge and month fixed effects. Column 3 only includes judges who have tried more than the median number of cases in the sample. Standard errors are clustered at the judge level.
*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

TABLE A2 Summary of balance for matched data

	Mean single-member panel	Mean three-member panel
Proportion female	0.6042	0.6042
Proportion foreigners	0.6494	0.6494
Proportion guilty verdict	0.8619	0.8619
Sample size	633	830
Matched	633	830

TABLE A3 Time between discussion in court and issue of decision between single- and three-member panels—coarsened exact matching

	(1)	(2)
Three-member panel	−0.866	−2.865
	(2.096)	(3.671)
Female presiding judge	1.889	1.931
	(2.896)	(2.781)
Foreigner defendant	−2.596	−2.699
	(2.328)	(2.374)
Time trend	0.020	−0.029
	(0.045)	(0.075)
Three-member panel × female presiding judge	0.154	0.532
	(3.278)	(3.257)
Lenient law		0.948
		(4.548)
Three-member panel × lenient law		2.962
		(4.036)
Guilty verdict	0.137	0.084
	(1.816)	(1.763)
Constant	12.875*** (3.569)	14.864*** (4.402)
R^2	0.007	0.010
Observations	1463	1463
Clusters	98	98

Note: Time until the issuance of a written decision in days is the dependent variable. Standard errors are clustered at the judge level.
*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

TABLE A4 Descriptive statistics of the respondents in the survey and comparison with the population of judges

	Countrywide	Survey respondents
Total number	1342	142
Higher rank (Efetis)	386 (28.76%)	37 (26.06%)
Lower rank (Protodikis)	956 (71.24%)	105 (73.94%)
% Based in Athens and Piraeus	46%	33.1%
% Based in Thessaloniki	17%	15.5%
% Based in the rest of the country	37%	51.4%

Note: The figures regarding the number of judges are taken from the data released by the Ministry of Justice for 2019. For the spatial distribution of judges, we used only the lower ranked judges, since the Ministry of Justice does not provide such data for the higher ranked judges since 2016.

APPENDIX B

TABLE B1 Composition of courts in a sample of member countries of the Council of Europe

	Panels			Type		
Country	**One member**	**Three members**	**More than three members**	**Professional judges**	**Lay judges**	**Jury**
Albania		✓		✓	✓	
Austria		✓	✓	✓	✓	
Belgium	✓	✓		✓		
Bosnia Herzegovina	✓	✓		✓		
Bulgaria		✓	✓	✓		✓
Croatia	✓			✓		
Czechia		✓		✓		
England and Wales		✓	✓	✓	✓	✓
Finland	✓	✓		✓	✓	
France	✓	✓	✓	✓		✓
Georgia	✓	✓	✓	✓		✓
Germany	✓	✓		✓	✓	
Hungary	✓	✓		✓	✓	
Ireland	✓	✓		✓		✓
Italy	✓	✓		✓		
Latvia	✓	✓		✓		
Luxemburg		✓		✓		
Malta	✓		✓	✓	✓	✓
Netherlands		✓		✓		
North Macedonia		✓	✓	✓	✓	
Norway		✓	✓	✓	✓	
Scotland	✓		✓	✓		✓
Serbia		✓	✓	✓	✓	
Slovakia	✓	✓	✓	✓	✓	
Slovenia		✓	✓	✓		✓
Spain	✓			✓		
Sweden			✓	✓	✓	
Switzerland	✓			✓		
Ukraine	✓	✓	✓	✓		✓

Note: Data were based on the authors' own research in 2018 for courts of first instance trying criminal cases that carry more sentences of at least 5 years. Whenever they can be identified, we exclude special courts, such as those set up for terrorist activities or for political personnel. When- ever we can distinguish, we define the type based on who decides on the conviction. Whenever there is a mixed composition including professional judges and lay judges or jurors, we indicate both in the appropriate Type column. Categorizations are based on our own judgment and the advice of two research assistants. Sources are available upon request. Correction, additions and updates are welcome. All errors are our own.