ORIGINAL SCIENTIFIC ARTICLE

*Bojan Spaić**
*Mila Đorđević***

LESS IS MORE? ON THE NUMBER OF JUDGES AND JUDICIAL EFFICIENCY

Abstract: In this paper, we deal with the relationship between the relative number of judges within a jurisdiction and the efficiency of the judiciary. To determine how the number of judges influences efficiency, we compare data on the judiciary from six countries: Serbia, Croatia, Slovenia, France, Austria and Norway. The analysis is based on data collected within the 2020 Evaluation cycle (2018 data) of CEPEJ and World Justice Report Rule of Law Index for 2018. We conclude that judicial efficiency does not increase with an increase in the number of judges in a jurisdiction.

Key words: judiciary, judicial system, judicial efficiency, judicial organisation, number of judges.

1. Introduction

Efficiency is one of the five aspects of judicial performance[1] and one of the aims of judicial case management.[2] It is one of the vital factors for

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* Associate Professor, Faculty of Law University of Belgrade; e-mail: bojan.spaic@ius. bg.ac.rs

** Teaching Assistant, Faculty of Law University of Belgrade; e-mail: mila@ius.bg.ac.rs

1 Five aspects of judicial performance are: independence (from other branches of power), efficiency (contrary to unreasonable delays and case backlogs), accessibility, accountability (to the letter of the law) and effectiveness. See Akutsu, L., Aquino Guimarães, T. de, 2015, Governança Judicial: Proposta De Modelo Teórico-Metodológico, *Revista de Administração Pública*, Vol. 49, No. 4; Staats, J., Bowler, S., Hiskey, J., 2005, Measuring Judicial Performance in Latin America, *Latin American Politics and Societies*, Vol. 47, No. 4, pp. 77–106.

2 For more information about judicial case management see Rhee, C. H. van, 2007, *Judicial Case Management and Efficiency in Civil Litigation*, Antwerpen – Oxford, Intersentia.

upholding the rule of law and a crucial component of a fair trial.[3] It opens the door for good governance, promotes the fight against corruption and builds confidence in institutions. Efficient judicial system enables individuals to enjoy their economic and social rights and freedoms. They improve the business climate,[4] attract foreign and domestic investments,[5] lower corporate leverage ratios,[6] reduce credit rationing, increase lending,[7] and secure stable state revenues.[8] The efficiency of courts is also usually considered in the context of economic development.[9]

When judicial efficiency is measurable, it can be compared among individual judges, courts, districts, regions and even across entire countries.[10] We assume that differences in the organisational structure of judicial systems have a critical influence on the productivity of these systems. However, the effects of these differences can only be analysed explicitly in a cross-country setting. This is precisely what we intend to do in this paper. The empirical basis of the analysis consists of data collected under the 2020 Evaluation cycle (2018 data) of the European Commission for the Efficiency of Justice (CEPEJ)[11] and the 2018 World Justice Report.

3   Melcarne, A., Ramello, G., 2015, Judicial Independence, Judges' Incentives and Efficiency, *Review of Law & Economics*, Vol. 11, No. 2, pp. 149–169.

4   Fabbri, D., 2010, Law Enforcement and Firm Financing: Theory and Evidence, *Journal of the European Economic Association*, Vol. 8, Issue 4, pp. 776–816; Jappelli, T., Pagano, M., Bianco, M., 2005, Courts and Banks: Effects of Judicial Enforcement on Credit Markets, *Journal of Money, Credit, and Banking*, Vol. 37, Issue 2, pp. 223–244.

5   Falavigna, G., Ippoliti, R., Manello, A., 2019, Judicial Efficiency and Immigrant Entrepreneurs, *Journal of Small Business Management*, Vol. 57, Issue 2, pp. 421–449; Lepore, L., Paolone, F., Cambrea, D. R., 2018, Ownership Structure, Investors' Protection and Corporate Valuation: The Effect of Judicial System Efficiency in Family and Non-Family Firms, *Journal of Management and Governance*, Vol. 22, No. 4, pp. 829–862.

6   Shah, A. *et al.*, 2017, Judicial Efficiency and Capital Structure: An International Study, *Journal of Corporate Finance Elsevier*, Vol. 44(C), pp. 255–274.

7   Božović, M., 2021, Judicial Efficiency and Loan Performance: Micro Evidence from Serbia, *European Journal of Law and Economics*, Vol. 52, Issue 1, No. 2, pp. 33–56.

8   Dejuan-Bitriaa, D., Mora-Sanguinetti, J. S., 2021, Which Legal Procedure Affects Business Investment Most, and Which Companies Are Most Sensitive? Evidence from Microdata, *Economic Modeling*, Vol. 94, pp. 201–220.

9   Fauvrelle, T. A., Almeida, A. T. C. 2018, Determinants of Judicial Efficiency Change: Evidence from Brazil, *Review of Law & Economics*, Vol. 14, Issue 1.

10   Voigt, S., 2016, Determinants of Judicial Efficiency: A Survey, *European Journal of Law and Economics*, Vol. 42, p. 2.

11   The European Commission for the Efficiency of Justice (CEPEJ), which was initiated by the Council of Europe, has published five waves of data reflecting the situation in up to 47 countries between 2004 and 2012 regarding the judiciary. More information at: https://www.coe.int/en/web/cepej.

The most common assumption in the Serbian legal public is that the relative inefficiency of the Serbian judicial system is caused by the number of vacant judicial seats and the absolute number of judges in lower courts. The official standpoint of The Supreme Court of Cassation in Serbia is similar: "there are significantly fewer judges than there should be".[12] Also, the public discourse is littered with claims that the policies and strategies for increasing judicial efficiency should focus on increasing the number of judges and courts. Under these assumptions, the strategies for developing the judiciary focus on the number of judges and their insufficiency. In this article, we test these assumptions by comparing the organisation of the judicial system in Serbia and its efficiency with judicial efficiency in two former-Yugoslav countries (Croatia and Slovenia) and three European civil law countries (France, Austria and Norway). First, we introduce the concepts of judicial efficiency and judicial organisation. Then we provide an overview of judicial organisations in Serbia and other five comparing countries and finish with the detailed analysis of number of courts, judges, non-judge staff and their efficiency.

2. Conceptual Framework: What Is Efficiency of Justice?

Efficiency prevails when a given output is realised with minimum input, or a maximum output is produced with a given amount of inputs.[13] A distinction is often made between technical and allocative efficiency. While technical efficiency refers to the best possible use of given resources, allocative efficiency refers to the idea that resources should be used where they are of the highest value to the society.[14] Because there are no market values for decisions made by a court, ascertaining allocative efficiency seems almost impossible. But what are the inputs and outputs for measuring technical judicial efficiency?

There is no single answer. Ippoliti and Tria have made a list of all inputs and outputs, and methods used to analyse the efficiency of justice in various research papers.[15] The number of settled cases is identified as the

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12   Dijalog.net, *Vasović: Nedovoljan broj sudijskih pomoćnika dodatno umanjio efikasnost obavljanja sudijske funkcije,* (https://dijalog.net/vasovic-nedovoljan-broj-sudijskih-pomocnika-dodatno-umanjio-efikasnost-obavljanja-sudijske-funkcije/).

13   Voigt, S., 2016, p. 4.

14   *Ibid.*

15   Ippoliti, R., Tria, G., 2020, Efficiency of Judicial Systems: Model Definition and Output Estimation, *Journal of Applied Economics*, Vol. 23, Issue 1, pp. 339–360.

most common output. However, it is presented as an aggregate measure,[16] and only a few studies have tried to adopt a more precise output measure by disaggregating resolved cases according to case matters. At the same time, even greater heterogeneity can be observed when inputs are considered: judges and staff, pending and/or incoming cases, suggesting that the demand for justice might affect court productivity.[17]

An additional important question is whether inputs can only be used in a fixed relationship or they can, at least to a degree, be substituted against each other. Voight suggests distinguishing between supply and demand factors that influence judicial efficiency to better understand potential inputs that can be considered and analysed.[18] The demand for court services will be affected by many factors, such as the regulation of the legal profession, the allocation of court costs to the participating parties, and legal protection insurance.[19] Vereeck and Mühl conclude that in attempts to reduce court delay, the focus should be on the demand side, and they recommend raising court fees.[20]

The organisational structure of court systems has a significant influence on its efficiency, and components of the judicial organisation should be taken as inputs. Voight and El-Baily[21] include the following elements in the concept of judicial organisation: having judicial councils in the system, having a career or non-career judiciary,[22] size of the courts, degree of specialisation of certain courts, public or private enforcement mechanisms,[23] duties beyond simply deciding contentious

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16 Cases vary a lot in terms of their complexity. In research of the Judicial Efficiency Project, complex criminal cases represent only 10% of all analysed cases by judges, but judges spend 44% more time working on these cases than average. In civil matters, disputes regarding contracts, debts and damages represent about 64% of the total number of cases. Still, judges spend between 18% and 33% less time working on them compared to the average time needed to solve a case. Serbian judges spend most of their time in disputes with actions of doing and not doing (Ceretto, J., 2017, *Formula za vrednovanje predmeta po težini za sudove u Republici Srbiji*, Beograd, Judicial Efficiency Project British Council).

17 Ippoliti, R., Tria, G., 2020.

18 Voigt, S., 2016, Determinants of Judicial Efficiency: A Survey, *European Journal of Law and Economics*, Vol. 42, p. 6.

19 *Ibid.*

20 Vereeck, L., Mühl, 2000, An Economic Theory of Court Delay, *European Journal of Law and Economics*, Vol. 10, pp. 243–268.

21 Voigt, S., El-Bialy, N., 2013, pp. 4–6.

22 In the former, law graduates become judges at a fairly young age, whereas in the latter, a judgeship comes as the crowning of a long and successful career in the law profession.

23 Under public enforcement, a state servant is the enforcing agent, whereas under private enforcement, bailiffs employed by profit seeking companies enforce court decisions.

cases dedicated to judges. Under the concept of judicial organisation, CEPEJ includes courts (number of courts, number of specialised courts and courts' geographic location), court staff (professional judges, non-judge staff, court presidents, non-professional judges), public prosecutors (heads of prosecution offices), gender equality, use of information technologies in courts and performance and evaluation.[24] For the purposes of this article, the term judicial organisation will denote the number of courts, the number of special courts, the number of judges, the number of non-judge staff, and the number of prosecutors. All these components of judicial organisation will be considered inputs for the present analysis. The main output will be the number of resolved cases. As the measurement of judicial efficiency, clearance rate and departure time will be taken into account, as well as subjective indexes on civil and criminal justice measured by WJP. The components of the judicial organisation are neither determined in the very long run nor easily changed within a few years.

The technical relationship between chosen inputs and outputs should be analysed to measure judicial efficiency, while the other factors can affect it parametrically or through non-parametric shifting factors.[25] That technical relationship can be the time needed to settle a case, the number of cases completed by a court, technical efficiency scores and clearance rates.[26] The methodologies applied in different analysis range from simple econometric regression models to more sophisticated ones, like Free Disposal Hull, Directional Distance Function, Data Envelopment Analysis, and Malmquist indexes.[27] For example, CEPEJ has developed two performance indicators to assess court efficiency at the European level: Clearance Rate (CR) and Disposition Time (DT).[28]

24 https://rm.coe.int/cepej-explanatory-note-2020-2022/1680a1fbb2
25 Ippoliti, R., Tria, G., 2020.
26 *Ibid.*
27 *Ibid.*
28 Disposition Time (DT) is the theoretical time necessary for a pending case to be resolved, taking into consideration the current pace of work. The resulting indicator should not be taken as an actual calculation of the average value. Actual average time needed for case resolution would need to be derived from judicial case management ICT systems. Since this is still unfeasible in most of the states or entities, this indicator offers valuable information on the estimated length of the proceedings. It is reached by dividing the number of pending cases at the end of a particular period by the number of resolved cases within that period, multiplied by 365. More pending than resolved cases will lead to a DT higher than 365 days (one year) and *vice versa*.

Diagram 1. The framework of the analysis
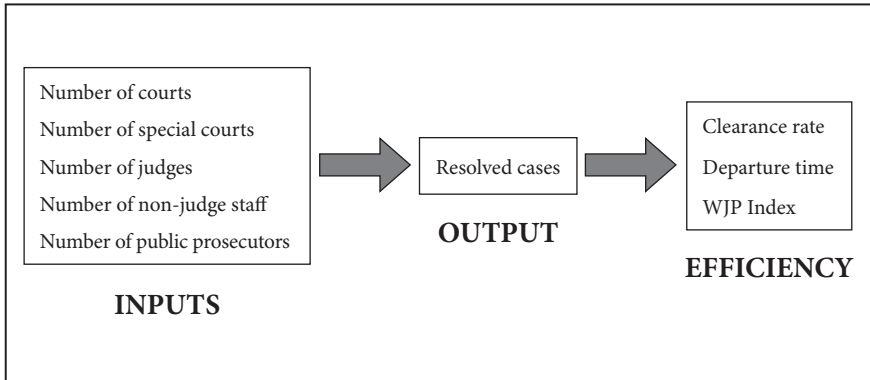
Existing literature on this matter has proven the validity of many potential inputs and various potential factors of influence. Court performance can be affected by political, institutional and socio-economical covariates.[29] Based on the dataset offered by CEPEJ, income per capita, the court budget, the degree of procedural formalism and the size of courts are all insignificant for the resolution rate. Special courts are significantly correlated with a lower resolution rate, so introducing more special courts is, therefore, unlikely to reduce the backlog. Moreover, judicial councils are significantly and robustly correlated with lower resolution rates. The variable positively associated with the resolution rate is the fact that a country belongs to the socialist legal family.[30]

3. COMPARATIVE FRAMEWORK

Djankov *et al.* distinguished five types of countries based on their legal origin that emerged in Europe: English, French, Socialist, German, and Scandinavian.[31] In this paper, England was excluded since it is not a civil law country, and for the analysis France was chosen to represent the French legal family, Austria the German legal family and Norway the Scandinavian legal family. This section will present the organisation of courts in Serbia. Still, to provide a broader picture of the efficiency of

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29   Castro, M. F., Guccio, C., 2014, Searching for the Source of Technical Inefficiency in Italian Judicial Districts: An Empirical Investigation, *European Journal of Law and Economics*, Vol. 38, Issue 3, pp. 369–391.

30   Voigt, S., El-Bialy, N., 2013, Identifying the Determinants of Judicial Performance: Tax-payers' Money Well Spent?, *European Journal of Law and Economics*, Vol. 41, Issue 2.

31   Djankov, S. *et al.*, 2003, Courts: The Lex Mundi Project, *Quarterly Journal of Economics*, 118, pp. 453–517.

justice in Serbia, data collected in other former-Yugoslav countries (Croatia and Slovenia) will also be analysed. The comparative framework also includes the developed countries that participated in WJP and CEPEJ reports that exemplify different types of legal families.

All chosen countries for the analysis have signed the European Convention on Human Rights. According to the European Court of Human Rights practice, they have an obligation to establish an efficient judiciary. According to ECHR, it is a prerequisite for realising the right to access justice for all citizens.[32] Chronic overcrowding and case backlogs are not valid explanations for excessive delays.[33] Moreover, the ECHR characterises the continued existence of a large number of backlog cases as a systematic violation of human rights that is contrary to the Convention,[34] and the state's budgetary difficulties cannot be considered as a justification.[35]

3.1. IN SERBIA

The organisation of the judicial system in Serbia is regulated by the Constitution of the Republic of Serbia, the Statute on the Organisation of Courts[36] and the Statute on the Seats and Territorial Jurisdictions of Courts and Public Prosecutor's Offices.[37] Several strategies and action plans have been adopted in the last decade to improve the efficiency of the Serbian judiciary.[38] Courts of general jurisdiction include primary, higher, appellate courts, and the Supreme Court of Cassation. Specialised courts comprise commercial courts, Commercial Appellate courts, Misdemeanour Courts, Misdemeanour Appellate Courts and the

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32 ECtHR, *Union Alimentaria Sanders S.A. v. Spain*, no. 11681/85, Judgment of 11 December 1987; ECtHR, *Tziovanis and Others v. Greece*, no. 27462/09, Judgment of 19 January 2017; ECtHR, *Hentrich v. France*, no. 13616/88, Judgment of 22 September 1994, para. 61.

33 ECtHR, *Probstmeiner v. Germany*, no. 20950/92, Judgment of 1 July 1997, para. 64.

34 ECtHR, *Botazzi v. Italy*, no. 34884/97, Judgment of 28 July 1999.

35 ECtHR, *Burdov v. Russia* (2), no. 33509/04, Judgment of 15 January 2009.

36 *Official Gazette of the RS*, Nos. 116/08, 104/09, 101/10, 31/11, 78/11, 101/11, 101/13, 106/15, 40/15, 13/16 and 108/16.

37 *Official Gazette of the RS*, No. 101/13.

38 Strategy for the development of the judiciary for the period 2020–2025, *Official Gazette of the RS*, Nos. 101/20, and 18/22; Strategy of human resources in the judiciary for the period 2022–2026, *Official Gazette of the RS*, No. 133/21; Action plan for the period 2022–2026 for the implementation of the strategy for development of the judiciary for the period 2020–2025, *Official Gazette of the RS*, No. 45/22; The Unified program for solving old cases in the Republic of Serbia for the period 2021–2025, *Official Gazette of the RS*, (I Cy 1 19/2021 05.02.2021); Action plan for the period 2022–2026 for the implementation of the strategy of human resources in the judiciary for the period 2022–2026, *Official Gazette of the RS*, 133/21.

Administrative Court. The Supreme Court of Cassation is the highest in the Republic of Serbia. It is directly superior to the Commercial Appellate Court, the Misdemeanour Appellate Court, Administrative Court and Appellate Court. Apart from the Supreme Court of Cassation, other state-level courts are Commercial Appellate Court, Misdemeanour Appellate Court and Administrative Court. With the establishment of a new network of courts, which began operating on January 1, 2014, conditions were created for reducing the number of old cases and for a more even distribution of cases. However, the implementation of these measures did not produce the desired results.[39] One way to increase the efficiency in exercising the jurisdiction of the courts in the previous period is reflected in the transfer of "judicial matters" from the courts to public notaries and public bailiffs[40] and changing numerous procedural laws during the last period.[41]

The public perceives the Serbian court system as slow and inefficient and has the worst ranking according to WJP compared to other analysed countries. In the public discourse, both professional and civil, the cause of poor efficiency is usually found in an insufficient number of judges in the system. In the Strategy of human resources in the judiciary for the period 2022–2026, it is recognised that vacant judicial positions in the system are one of the reasons for the long duration of court proceedings[42] and that an insufficient number of judicial assistants has a negative impact on the duration of proceedings.[43] In the draft for changing the Law on judges by The Union of the Judiciary of Serbia, there were suggested changes for "overcoming the difficulties caused, first of all, due to an insufficient number of judges".[44] There were even suggestions for employing temporary

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39   Strategy for the development of the judiciary for the period 2020–2025, p. 22.

40   *Ibid.,* p. 23–24.

41   Criminal Procedure Act, *Official Gazette of the RS*, Nos. 72/11, 101/11, 121/12, 32/13, 45/13, 55/14, 35/19, 27/21 – Decision of the Constitutional court (CC decision) and 62/21 – CC decision; Civil Procedure Act, *Official Gazette of the RS*, Nos. 72/11, 49/13 – CC decision, 74/13 – CC decision, 55/14, 87/18 i 18/20; Law on bankruptcy proceeding, *Official Gazette of the RS*, 104/09, 99/11 – other law, 71/12 – CC decision, 83/14, 113/17, 44/18 i 95/18; General Administrative Procedure Act, *Official Gazette of the RS*, Nos. 18/16 and 95/18 – authentic interpretation; Law on enforcement and security interest, *Official Gazette of the RS*, Nos. 106/15, 106/16 – authentic interpretation, 113/17 – authentic interpretation and 54/19; Non-Litigation Procedure Act, *Official Gazette of the RS,* Nos. 25/82, 48/88, 46/95 – other law, 18/05 – other law, 85/12, 45/13 – other law, 55/14, 6/15, 106/15 – other law and 14/22.

42   Strategy of human resources in the judiciary for the period 2022–2026, *Official Gazette of the RS*, No. 133/21, p. 5.

43   *Ibid.,* p. 7.

44   http://www.sind-prav.org.rs/Support/Predlog_zakona.pdf.

judges and non-judge staff, full-time or part-time, from other legal professions to increase the efficiency of courts in Serbia.[45]

3.2. IN OTHER COUNTRIES

Like Serbia, Croatia has a very branched judicial organisation. The Croatian network of courts is mentioned in the Guidelines for creating a network of courts prepared by CEPEJ in 2013 as a negative example of an "excessive number of courts" and "irrational allocation of resources".[46] Courts of general jurisdiction have three instances (*opštinski sudovi*, *županijski sudovi* i *Vrhovni sud Republike Hrvatske*), while courts of special jurisdiction are misdemeanour courts, commercial courts and administrative courts.[47] Apart from judges, the Croatian judicial system includes *Rechtspflegers* – land registry officers and court registry officials who are authorised to decide land registry cases independently as well as company register cases.

Of all former-Yugoslav countries, Slovenia has the best ranking according to WJP. Courts in Slovenia are divided into courts of general jurisdiction and specialised courts.[48] Courts of special jurisdiction were established in social and administrative law. Regular courts number 44 local courts, 11 district courts, and four higher courts, and there is the Supreme Court of the Republic of Slovenia (*Vrhovno sodišče*). Slovenia, like Croatia, has *Rechtspflegers* in charge of registry cases, insolvency cases and enforcement of civil cases.

In France, there are two types of jurisdiction: the ordinary judiciary that decides in trials between private persons and punishes infringements of the penal law and administrative tribunals responsible for settling lawsuits between public bodies. For civil cases, the judiciary consists of higher courts (*grande instance*) and lower courts (*tribunaux d'instance*). For criminal cases, there are courts of correction (*tribunaux correctionnels*) and "police courts" (*tribunaux de police*) which decide for minor offences. The decisions of these courts can be referred to one of

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45   Cornu, P., Valancius, V., 2010, *Podrška reformi pravosuđa u Srbiji u svetlu standarda Saveta Evrope*, Final report for Council of Europe, pp. 48–49.

46   See section 2.2, (https://rm.coe.int/1680748151#_Toc356475576).

47   Judicial organisation in Croatia, (https://e-justice.europa.eu/content_judicial_systems_in_member_states-16-hr-en.do?member=1#:~:text=Judicial%20authority%20in%20the%20Republic,in%20the%20Republic%20of%20Croatia).

48   Judicial organisation in Slovenia, (https://www.gov.si/en/policies/rule-of-law-and-justice/the-judicial-system/#:~:text=Courts%20and%20the%20court%20system&text=General%20courts%20operate%20at%20four,highest%20court%20in%20the%20country).

the 35 courts of appeal. All these courts are subject to the control of the Court of Cassation.[49]

The Austrian judiciary is divided into general courts (*ordentliche Gerichte*) and public law courts (*Gerichte öffentlichen Rechts*).[50] The general courts handle civil and criminal trials. The courts of public law supervise the other two branches of government: the administrative court system reviews the legality of administrative acts, and the Constitutional Court adjudicates complaints regarding the constitutionality of statutes. The hierarchy of general courts has four levels: district, regional, higher regional, and supreme court. Austrian judicial system also includes *Rechtspflegers* which issue court orders and are in charge of some non-litigious matters.

Norway is consistently ranked among the top countries regarding commitment to the rule of law and among the top ten countries in the World Bank's Ease of Doing Business rankings (number three regarding the ease of enforcing contracts).[51] The ordinary courts of Norway are of general jurisdiction, adjudicating civil and criminal cases.[52] The Norwegian justice system has three main levels: District Courts (*tingrettene),* the Courts of Appeal (*lagmannsrettene)* and the Supreme Court (*Høyesterett)*. There are 23 District Courts, 6 Courts of Appeal and four special courts and court-like bodies: The Land Consolidation Courts of Norway (*jordskiftedomstolene*), The Labour Court of Norway (*Arbeidsretten*), The Finnmark Land Tribunal (*Utmarksdomstolen for Finnmark*) and The National Insurance Court (*Trygderetten*).

4. Data

Data analysed in this paper were collected under the 2020 Evaluation cycle (2018 data) of CEPEJ[53] and World Justice Report Rule of Law Index for 2018.[54] In order to measure and compare countries according to their

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49   Judicial organisation in France, (https://www.britannica.com/place/France/Justice).

50   Judicial organization in Austria, (https://www.oesterreich.gv.at/en/themen/dokumente_und_recht/gerichtsorganisation_der_justiz.html).

51   World Bank, *Business Enabling Environment*, (https://www.worldbank.org/en/programs/business-enabling-environment).

52   Judicial organisations in Norway, (https://www.advokatforeningen.no/om/om-medlemskapet/english/features-of-the-norwegian-legal-system/structure-of-the-courts/).

53   The European Commission for the Efficiency of Justice (CEPEJ), which was initiated by the Council of Europe has published five waves of data reflecting the situation in up to 47 countries between 2004 and 2012 regarding judiciary, (https://www.coe.int/en/web/cepej).

54   The World Justice Project Rule of Law Index is the world's leading source for original data on the rule of law. The 2020 edition covers 128 countries and jurisdictions,

efficiency, we have relied on proxies: subjective and objective variables. The subjective ones rely on a subjective evaluation of judicial efficiency elicited by a poll (from 0 to 1 in WJP reports and from 1 to 10 in CEPEJ reports). Objective ones rely on data provided by CEPEJ.

The Clearance rate and departure time provided by CEPEJ were also used for measuring efficiency. The Clearance Rate (CR) is the ratio obtained by dividing the number of resolved cases by the number of incoming cases in a given period, expressed as a percentage.[55] Disposition Time (DT) is the theoretical time necessary for a pending case to be resolved, considering the current pace of work.[56] It is calculated by dividing the number of pending cases at the end of a particular period (in the present case a year) by the number of resolved cases within that period, multiplied by 365. More pending than resolved cases will lead to a DT higher than 365 days (one year) and *vice versa*.

5. Comparison of Data

5.1. THE ORGANISATION OF JUDICIAL SYSTEMS

There is a great diversity in the organisation of judicial systems in analysed countries: Norway has the smallest number of courts of all instances (68), and France has the biggest (641) (Table 1). But, when we compare the numbers with the proportion of the country, former Yugoslav countries have far more courts than France, Austria and Norway. Countries with the highest number of courts per million inhabitants are Croatia – 50.29), Slovenia – 37.2, and Serbia – 22.83. Compared with Balkan countries, France has the smallest number of courts per million inhabitants – 9.56, then Austria – 11.56 and Norway – 12.76. All countries have, apart from courts of general jurisdiction, courts of special jurisdiction.

Research based on previous CEPEJ rounds shows that judicial systems with more special courts are less efficient. From that perspective, Slovenia and Norway have the best predispositions for an efficient judicial network. In Slovenia, there are special labour and social courts and administrative courts, while in Norway, there are special courts for labour law

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relying on more than 130,000 household and 4,000 expert surveys to measure how the rule of law is experienced and perceived in practical, everyday situations by the general public worldwide, (https://worldjusticeproject.org/about-us/overview/our-approach).

55 CEPEJ, 2020, *European judicial systems CEPEJ Evaluation Report 2020 Evaluation cycle (2018 data)*, Council of Europe, pp. 107–108.

56 *Ibid.*

and insurance law. In Serbia, there are 44 special misdemeanour courts, 16 commercial courts, and an Administrative Court (with three departments). Croatia and France have more first-instance specialised courts than first-instance courts of general jurisdiction. France has ten times more specialised courts than general ones: 143 commercial courts, 216 labour courts, 289 rent and tenancies courts, 241 insurance and social welfare courts, 272 courts for agriculture land, 155 juvenile courts, 49 enforcement of criminal sanctions courts, nine courts for the fight against terrorism, organised crime and corruption, 42 administrative courts, 36 courts for military pensions, six maritime courts, one first instance court for navigation on the Moselle and one asylum court. Croatia has eight commercial courts, one labour court, four administrative courts and 23 misdemeanour courts. Austria has 18 first-instance specialised courts: 11 administrative, two commercial courts, two enforcement of criminal sanctions courts, and a labour and insurance court.

	Serbia	Croatia	Slovenia	France	Austria	Norway
First instance courts of general jurisdiction (legal entities)	91	22	55	168	128	59
First instance specialised courts (legal entities)	61	36	5	1463	18	2
All the courts	159	205	77	641	102	68
Courts per milion inhabitants	22,83	50,29	37,02	9,56	11,56	12,76

Table 1. Number of courts

Since former Yugoslav countries have more complex judicial systems relating to the number of inhabitants, they also have relatively more judges than France, Austria and Norway (Table 2). It is a common feature of all former-Yugoslav countries: Serbia has 37.1, Croatia 40.7 and Slovenia 41.7 professional judges per 100,000 inhabitants. France and Norway have far fewer: 10.3 judges come per 100,000 inhabitants in Norway and 10.9 judges per 100,000 inhabitants in France. Austria is in the middle among analysed countries, with 27.3 judges per 100,000 inhabitants.

	Serbia	Croatia	Slovenia	France	Austria	Norway
First instance professional judges	2,225	1,176	636	5,121	1,957	359
The Second instance (court of appeal) professional judges	320	446	199	1,805	321	169
Supreme Court professional judges	41	38	32	351	133	20
Total number of professional judges	2,586	1,660	867	7,277	2,411	548
Professional judges per 100.000 inhabitants	37.1	40.7	41.7	10.9	27.3	10.3

Table 2. Number of professional judges

An essential part of the judicial organisation is the non-judicial staff who assists judges, does administrative tasks, organises the work in courts, or handles the judiciary's technical support.[57] The number of non-judicial staff increases the efficiency of judicial systems, and non-judge staff is the most common input factor in efficiency analysis apart from the number of judges. CEPEJ analysis separated non-judicial staff into six categories: *Rechtspflegers*, judge assistants, personnel for administrative tasks, technical staff and other non-judge staff (Table 3). Although it might be expected that there would be a negative correlation between the number of professional judges and the number of non-judicial staff per 100,000 inhabitants, the situation is reversed: Serbia, Croatia and Slovenia have more non-judicial staff compared with France, Austria and Norway. In Norway, there are only 16 non-judicial personnel on 100,000 inhabitants. In Serbia, there are 126.8; 143 in Croatia, and 163 in Slovenia per 100,000 inhabitants. Countries with more judges also have more non-judicial staff. The proportion between judges and non-judicial staff in analysed countries is similar to previous results. In Norway, per one judge comes 1.55 non-judicial staff and in

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57   When it comes to the prosecutors who are, apart from judges, the most important figures in criminal proceedings, there is no great diversity in analysed countries as in the case of judges and non-judicial staff. In comparison to the number of inhabitants, France has the least number of prosecutors (3), then Austria (4.3) and Croatia (4.6). Norway has the smallest number of courts and judges but has the largest number of prosecutors in comparison to its population (14.7 per 100,000 inhabitants), which is more even than Serbia (11.2 per 100,000 inhabitants) and Slovenia (10.2 per 100,000 inhabitants).

Slovenia, per one judge comes 3.91 non-judicial staff. Other countries have a proportion between Norway and Slovenia: in Austria, one judge can proximately count on the help of 2.05 non-judge staff; in France, on one judge comes 3.13 non-judge staff; in Serbia, 3.41 and Croatia 3.51.

	Serbia	Croatia	Slovenia	France	Austria	Norway
Rechtspfleger (or similar bodies)[58]	/	541	506	/	833	/
Non-judicial staff whose task is to assist the judges[59]	3,700	4,135	970	18,894	342	/
Administrative staff[60]	3,179	490	1,716	2,657	764	/
Technical staff	1,948	662	199	1,025	53	/
Other non-judicial staff	/	/	/	268	2 974	/
Total non-judicial staff working in courts	8,827	5,828	3,391	22,844	4,966	851
Non-judicial staff in courts per 100,000 inhabitants	126.8	143	163	34.1	56.3	16
Non-judicial staff per one professional judge	3.41	3.51	3.91	3.13	2.05	1.55

Table 3. Number of non-judicial staff

5.2. THE EFFICIENCY OF JUDICIAL SYSTEMS

Objective and subjective parameters are used to compare the data about the efficiency of chosen judicial systems. The most important objective parameter is the number of cases before first-instance courts. Table 4

58   The *Rechtspflegers* are defined as independent judicial bodies according to the tasks delegated to them by law. Such tasks can be related to family and guardianship law, the law of succession, the law on land register, commercial registers, decisions about granting a nationality, criminal law cases, enforcement of sentences, reduced sentencing by way of community service, the prosecution in district courts, decisions concerning legal aid, etc. The *Rechtspfleger* has a quasi-judicial function.

59   Non-judicial staff directly assist a judge with judicial support (assistance during hearings, (judicial) preparation of a case, court recording, providing service in drafting judicial decisions, and legal counselling – for example, court registrars).

60   Administrative staff are not directly involved in the judicial assistance of a judge but are responsible for administrative tasks (such as the registration of cases in a computer system, the supervision of the payment of court fees, administrative preparation of case files, archiving) and/or the management of the court (for example a head of the court secretariat, head of the computer department of the court, financial director of a court, human resources manager, etc.).

shows the number of incoming (marked as I) and resolved cases (marked as R in civil and administrative matters, and Table 8 shows the numbers for criminal matters.

There is a great diversity in the number of incoming and resolved cases in analysed countries. Comparing countries is possible when cases are calculated proportionately to the country's population. Serbia has the highest number of both incoming and resolved cases per its population: 4.659 incoming cases and 5.141 resolved cases per 100 inhabitants. These numbers are bigger than in other former Yugoslav countries (Croatia has 2.85 and 3.21 cases on 100 inhabitants, and Slovenia has 1.95 and 2.14) and way bigger than numbers in France, Austria and Norway. Norway has the smallest number of civil cases: only 0.31 incoming and resolved civil cases on 100 inhabitants. Serbia has four times more incoming and resolved civil cases than Norway and two more times than Slovenia and France. Regarding the administrative cases, all analysed countries have similar numbers compared to the number of inhabitants (it is less than 1 per 100 inhabitants for all surveyed countries).

	Serbia		Croatia		Slovenia		France		Austria		Norway	
	I	R	I	R	I	R	I	R	I	R	I	R
Civil (and commercial) litigious cases	324,445	358,013	116,412	130,931	40,700	44,677	1,498080	1,434,571	83,403	84,061	16,522	16,667
Non-litigious cases	611,901	739,969	752,833	776,278	437,669	449,352	171,180	169,124	2,598,742	2,614,882	36,489	35,292
Administrative law cases	25,073	18,346	13,430	15,571	3,540	3,233	213,029	209,618	71,553	64,177	⁓	⁓
Other cases	49,589	49,986	⁓	⁓	156,166	153,669	⁓	⁓	513,485	511,693	⁓	⁓
Total of other than criminal law cases	1,011,008	1,166,314	882,675	922,780	638,075	650,931	1,882289	1,813,313	3,267183	3,274,813	53,011	51,959
Total of civil cases per 100 habitants	4.659	5.141	2.856	3.212	1.956	2.147	2.236	2.141	0.945	0.953	0.310	0.313
Total of administrative cases per 100 inhabitants	0.360	0.263	0.329	0.382	0.170	0.155	0.318	0.313	0.811	0.727	⁓	⁓

Table 4. Number of first-instance cases other than criminal

The difference between Serbia and other analysed countries is even more significant regarding the numbers of incoming and resolved criminal cases (Table 5). Compared to the number of inhabitants, Serbia has 27 times more incoming and resolved criminal cases than Norway and Austria, seven times more than Slovenia and 5.2 times more than Croatia. Serbia has a total number of criminal cases in front of the first instance courts of 1,949,333 or 27.993 incoming criminal cases per 100 inhabitants. France is the second country with the most criminal cases, with 976,571 incoming criminal cases or only 1.45 cases per 100 inhabitants. All other countries have less than 200,000 criminal cases in total, and Norway has the smallest amount of incoming and resolved criminal cases (22,841 and 22,809 in total or 0.429 per 100 inhabitants). This enormous discrepancy between Serbia and all other analysed countries can be explained by including misdemeanour proceedings in criminal proceedings (see Table 5, Section: Other cases).

	Serbia		Croatia		Slovenia		France		Austria		Norway	
	I	R	I	R	I	R	I	R	I	R	I	R
Severe criminal cases	51,708	52,361	17,113	15,773	12,726	13,217	581,017	644,471	23,682	23,895	–	–
Misdemeanour and/or minor criminal cases	347,081	411,236	121,830	122,945	26,412	27,085	395,554	332,066	27,478	27,827	–	–
Other cases	1,550,544	1,572,941	47,762	48,518	33,084	33,019	–	–	–	–	–	–
Total of criminal law cases	1,949,333	2,036,538	186,705	187,236	72,222	73,321	976,571	976,537	70,019	71,055	22,841	22,809
Total of criminal cases per 100 inhabitants	27.993	29.245	4.580	4.593	3.471	3.524	1.458	1.458	0.794	0.805	0.429	0.428

Table 5. Number of first-instance criminal cases

Despite its high number of cases in the first instance, the judges in Serbia solve as many cases as they receive. CEPEJ calculates that proportion as clearance rate (CR). If the clearance rate exceeds 100, courts resolve more cases than they receive. Surprisingly, despite its high number

of incoming cases, it is noticeable in Table 6 that Serbia has one of the highest clearance rates for civil and criminal cases. In civil matters, all former Yugoslav countries have good results, with CR around 110%: Croatia has CR 112.5% for civil cases and 104.5% for criminal ones, and Slovenia has 109.8% for civil and 101.5% for criminal cases. France has the worst CR for civil proceedings, and it is the only country with more incoming than resolved cases (95.8%). In contrast, Austria and Norway have almost the same number of incoming and resolved cases in both criminal and civil procedures. All countries except Croatia have CR smaller than 100% for administrative cases. Serbia has the worst CR for administrative cases – 73.2%. Croatia has the best CR for administrative cases – 115.9%.

Another indicator for comparing the judicial efficiency of judicial systems made from CEPEJ is departure time (DT). Regarding departure time, Serbia has mean results for civil and criminal proceedings. DT time for Serbia is 224 days for civil and 132 for criminal proceedings, which is a better time than Croatia (374 for civil cases and 147 for criminal cases) and Slovenia (283 for civil and 147 for criminal cases). Austria and Norway have better DT than all former Yugoslav countries in civil and criminal cases. The most significant differences in DT for analysed countries exist for administrative cases, the highest in Serbia (745 days) and the smallest in Croatia (197).

		Serbia	Croatia	Slovenia	France	Austria	Norway
Civil cases – 1st instance	CR (%)	110.3	112.5	109.8	95.8	100.8	100.9
	DT	224	374	283	420	137	175
Criminal cases – 1st instance	CR (%)	104.5	100.3	101.5	100.0	101.5	99.9
	DT	132	147	142	/	120	70
Administrative cases – 1st instance	CR (%)	73.2	115.9	91.3	98.4	89.7	/
	DT	745	197	406	285	449	/

Table 6. Clearance rate and departure time

Comparing CR and DT for analysed countries from Table 6, it could be concluded that the efficiency of all surveyed countries is similar and without any significant differences. Deviations exist only in CR and DT for administrative proceedings, while results for criminal and civil cases are almost uniform. CR for all countries for civil and criminal proceedings is around 100, and DT is smaller than one year. But these data should

be taken with great caution since there is a big difference in the number of resolved cases in a country.

Serbia has a very high total number of both civil and criminal cases in proportion to its inhabitants, which may influence the distortion of CR and DT.[61] The situation in other former Yugoslav countries is similar. In order to paint a broader picture and to verify CR and DT in analysed countries, data regarding the efficiency of judicial systems collected by WJP is shown in Table 7. WJP indexes are presented on a scale of 0 to 1, where 0 represents the minimum score, and 1 is the maximum.

	Serbia	Croatia	Slovenia	France	Austria	Norway
Rule of Law (Ranking)	0.50 (76)	0.61 (35)	0.67 (26)	0.74 (18)	0.81 (8)	0.89 (2)
Civil justice	0.49	0.57	0.59	0.70	0.79	0.85
Civil justice is not subject to unreasonable delay	0.37	0.31	0.41	0.56	0.77	0.83
Civil justice is effectively enforced	0.50	0.54	0.49	0.72	0.84	0.91
Alternative dispute resolution mechanisms are accessible, impartial and effective	0.52	0.73	0.73	0.81	0.76	0.97
Criminal Justice	0.36	0.51	0.58	0.65	0.77	0.83
Criminal investigation system is effective	0.29	0.50	0.48	0.58	0.64	0.66
Criminal adjudication system is timely and effective	0.43	0.50	0.53	0.71	0.82	0.77

Table 7. The efficiency of judicial systems, according to WJP

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61   How can we interpret these indexes if we consider the results from CEPEJ? The differences in the number of incoming cases in front of the courts cannot be explained by different criminality rates in analysed countries or by legal culture toward resolving disputes in front of the courts. European countries differ in terms of their demand for services of their judicial systems. Still, the discrepancy in incoming cases is so significant that it can only be explained by mechanisms inside the judicial organisation and laws (both material and procedural). Accessibility of alternative dispute resolution mechanisms, the competencies given to the judges besides judging, the possibility of non-judge staff to decide in some instances, and procedural laws regarding joining of the procedures are all examples of potential factors that impact the number of incoming cases. Further detailed comparative analyses are needed.

WJP data shows a big discrepancy in analysed countries and almost opposite results in comparison with the data from Table 9. In both civil and criminal proceedings, despite better CR and DT, former Yugoslav countries have worse outcomes than France, Austria and Norway. Serbian index for civil justice is 0.49 and for criminal justice is 0.36, which are far worse indexes even than Croatia (0.57 for civil justice and 0.51 for criminal justice) and Slovenia (0.67 for civil justice and 0.58 for criminal justice). Norway has almost maximum indexes in all categories, except for the category Criminal investigation system is effective (0.66), which is its only index below 0.7. France and Austria have results above 0.5 (0.70 and 0.65 for France and 0.79 and 0.77 for Austria).

6. Conclusion

One can only talk about the optimal organisation of courts conditionally since there is no standard and clear model to estimate judicial efficiency. Court organisations are the product of tradition and constitutional and legal experimentation, so their change should also depend on the needs of the state and the society. An insufficient number of judges is a frequently mentioned cause of court inefficiencies in policy papers and the public, as manifested by delays and backlogs. Consequently, many reform agendas have sought to redress weak court performance by increasing judicial personnel. The data from six European countries (Serbia, Croatia, Slovenia, France, Austria and Norway) paints a different picture. The complexity of the court network and the number of judges and other judicial personnel in the judicial system are not directly related to the efficiency of judicial systems.

Significantly simpler judicial systems with fewer judges and non-judge staff (Norway) achieve better rule of law results than systems with more judges and more complex and branched court systems (Serbia, Croatia). Serbia shares the tradition of having a large number of courts, courts of special jurisdiction, professional judges, non-judge staff and public prosecutors with two other former Yugoslav countries – Croatia and Slovenia. France, Austria, and Norway have far less inflated judicial systems: Norway has 10.3 professional judges per 100,000 inhabitants, France 10.9, and Austria 27.3. Serbia has 37.1, Croatia 40.7 and Slovenia 41.7.

Besides having expansive judicial systems, Serbia, Croatia, and Slovenia have more incoming and resolved cases in civil and criminal matters. Even among the three post-Yugoslav countries, Serbia has the largest number of civil and criminal cases: it has 27 times more incoming and

resolved criminal cases than Norway and Austria, seven times more than Slovenia and 5.2 times more than Croatia. The total number of criminal cases in front of the first instance courts in Serbia is 1,949,333, or 27.993 incoming criminal cases per 100 inhabitants. All other analysed countries have less than 200,000 incoming or resolved criminal cases in total. Despite good Serbian CR and DT due to its high number of incoming cases, according to World Justice Report, Serbia has the least efficient justice system. The efficiency of justice in all analysed countries correlates with the results of the rule of law, so Norway, the most democratic country in the world, has the most efficient judicial system.

Our comparative analysis supports the claim that the network of basic courts in Serbia is not set up appropriately and that the disproportion in workload is so great that it cannot be justified either by the number of inhabitants or by the habits of addressing the court, or by the number of unfilled judicial positions. This supports the claim that a more comprehensive reform of the judicial network is necessary and that simply increasing the number of judicial personnel is not enough and will not lead to desirable results.

Some final normative considerations regarding judicial efficiency are in order. Cross and Donelson conclude, based on the results of a quintile regression, that the best way to improve judicial work is to increase judicial pay, whereas increasing the overall court budget and expanding the number of courts would be less promising.[62] Still, it certainly is not the sole solution for the efficiency of justice services.[63] Judge assistants increase court efficiency in resolving commercial cases requiring a full trial, and court clerks boost court efficiency in resolving writ-of-payment cases.[64] Concerning judicial staffing, empirical data on Slovenia indicates that court output does not statistically significantly depend on the number of professional judges.[65] The positive effect of caseload on the number of resolved cases is particularly strong: holding the number of working professional judges constant, a one per cent increase in a court's caseload leads to a more than one

62 Cross, F. B., Donelson, D. C., 2010, Creating Quality Courts, *Journal of Empirical Legal Studies*, Vol. 7, Issue 3, pp. 490–510.

63 Deyneli, F., 2011, Analysis of Relationship between Efficiency of Justice Services and Salaries of Judges with Two-stage DEA Method, *European Journal of Law and Economics*, Vol. 34, Issue 3, 477–493.

64 Bełdowski, J., Dąbroś, L., Wojciechowski, W., 2020, Judges and Court Performance: A Case Study of District Commercial Courts in Poland, *European Journal of Law and Economics*, Vol. 50, pp. 171–201.

65 Dimitrova-Grajzl, V. *et al.*, 2012, Court Output, Judicial Staffing, and the Demand for Court Services: Evidence from Slovenian Courts of First Instance, *International Review of Law and Economics*, Vol. 32, Issue 1, pp. 19–29.

per cent increase in the number of resolved cases per court. This suggests that an increase in the demand for court services (as proxied by the rise in caseload) incentivises judges to increase their productivity substantially.[66] World bank data show that specialised training and continuous learning in insolvency law positively impact efficiency. Economies with training programs for judges score better and are closer to the best regulatory practice measured by the Doing Business resolving insolvency indicators.[67] Structural reforms are comprehensive and require a significant commitment of resources, but they can also help increase efficiency.[68]

Before making any strategic decisions regarding the improvement of the court network and its efficiency, a detailed analysis of the costs of court proceedings by judicial matter and instances, as well as other necessary analysis of loads of individual courts, judges and non-judges staff, are needed for the reforms to be based on factual data, and not on biased intuitions of the lay or expert public.

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66 *Ibid.*

67 World Bank, 2019, Doing Business 2019 – Training for Reform, pp. 56–57, (https://www.worldbank.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf).

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MANJE JE VIŠE? O BROJU SUDIJA I SUDIJSKOJ EFIKASNOSTI

Bojan Spaić
Mila Đorđević

APSTRAKT

U ovom radu bavimo se odnosom između relativnog broja sudija u okviru jedne jurisdikcije i efikasnosti pravosuđa. Da bismo utvrdili kako broj sudija utiče na efikasnost, upoređujemo podatke o pravosuđu iz šest zemalja: Srbije, Hrvatske, Slovenije, Francuske, Austrije i Norveške. Analiza je zasnovana na podacima prikupljenim u 2018. godini od strane CEPEJ-a i Indeksa vladavine prava World Justice Report-a za 2018. godinu. Zaključujemo da se efikasnost pravosuđa ne povećava sa povećanjem broja sudija u jednoj jurisdikciji.

Ključne reči: sudstvo, sudski sistem, sudijska efikasnost, organizacija pravosuđa, broj sudija.