

Research Article

Exposing Regional Disparities in Spain's Judiciary Civil Service Exams

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The process of obtaining the position of *Gestor Procesal* in the Spanish judicial system, a crucial step for career advancement within the civil service, consists of two multiple-choice tests and a written exam. While the selection process is designed to ensure merit-based hiring, this study reveals systemic inconsistencies that undermine fairness and transparency. Through a comprehensive analysis of the exam for *Gestor Procesal*, the study identifies significant regional disparities in pass rates and scoring distributions, which deviate from expected Gaussian patterns. Non-parametric tests confirm statistically significant differences in success rates among regions, suggesting that factors beyond candidate performance—such as subjective evaluation criteria and structural inequalities—shape hiring outcomes. These findings raise concerns about institutional justice and social equity. Inconsistent evaluation criteria create systemic disadvantages, undermining procedural and distributive fairness. Furthermore, human capital theory is challenged by evidence that structural factors, rather than merit, determine success rates. Beyond its technical implications, this issue impacts social mobility, labor market segmentation, and public trust in democratic institutions. The disparities in career opportunities may contribute to regional inequalities and exacerbate precarity among interim staff, many of whom remain in temporary positions for years. Our study underscores the urgent need for policy reform, particularly in standardizing evaluation criteria, ensuring greater transparency in exam administration, and addressing structural inefficiencies in judicial hiring. By exposing these inequities, this research provides critical insights for policymakers seeking to enhance the fairness, efficiency, and credibility of Spain's judicial personnel selection process.

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1. Introduction

The landscape of legal systems across European countries reflects deep historical, cultural, and social differences, resulting in significant variation in judicial effectiveness and public trust (<https://rm.coe.int/cepej-report-2020-22-e-web/1680a86279>). While justice is a fundamental pillar of democratic societies, disparities in judicial administration can reinforce broader social inequalities, affecting not only legal outcomes but also career opportunities and socioeconomic mobility. Political factors can influence judicial processes, though mechanisms exist to safeguard judicial independence^[1]^[2]. Evaluating the performance of judges and justice department workers requires examining various elements that affect the rule of law^[3]. In the event that regional disparities exist in the selection of judicial personnel, this would constitute a clear case of institutional asymmetry, raising significant concerns regarding fairness, transparency, and equitable access to civil service careers.

The process of becoming a judicial civil servant in Spain follows a highly competitive examination system (*concurso-oposición*), theoretically designed to ensure merit-based selection. However, evidence suggests that this process does not operate equitably across all regions. The decentralized nature of the Spanish judiciary, combined with political influence and inconsistent resource allocation, results in significant disparities in pass rates and career prospects for candidates from different autonomous communities.

These kinds of disparities have profound social consequences. Civil service jobs, particularly in the judiciary, are highly valued for their job security, benefits, and potential for upward mobility. Inequities in exam administration and scoring create barriers that disproportionately impact candidates from certain regions, reinforcing pre-existing socioeconomic disadvantages. This issue is further compounded by the precarious employment conditions of interim judicial staff, who often face long-term job insecurity due to loopholes in labor laws that allow courts to delay offering permanent contracts.

Organizational practices can be influenced by external pressures, such as regional autonomy and political interference^[4]^[5]. Such *Institutional* theory explains how regional disparities persist despite a centralized examination framework. Although the system is centrally administered, regional variations in governance and implementation lead to inconsistencies that disadvantage certain candidates.

The regional disparities in exam scores and pass rates raise concerns about procedural and distributive justice, as candidates from certain regions may face systemic disadvantages. The so-called “Organizational Justice Theory”^[6] poses that there must be distinctions between distributive justice

based on the fairness of outcomes, procedural justice, based on the fairness of processes, and interactional justice, based on the fairness of interpersonal treatment (see also^[7]).

Research on Spain's judicial system highlights the impact of regional autonomy on administrative practices. Evident are the regional differences in resource allocation and political influence that can create inequities in public service delivery, including judicial administration^{[8][9][10][11]}.

The high proportion of interim staff in Spain's judiciary reflects broader issues in the labor market. The current exam design and labor laws present challenges that may hinder the selection of well-prepared and experienced candidates, while also allowing for the prolonged use of interim contracts. This practice, which is particularly serious in the public sector, not only affects job security but also undermines the quality of judicial services. The high proportion of interim staff in Spain's judiciary is a significant concern. According to BBVA Research (2021), 31% of public sector employees in Spain are interim workers, with even higher rates in the judiciary. According to the Spanish National Institute of Statistics' (<https://ine.es/>, accessed on Feb 28, 2025), the issue has increased in magnitude in recent years, despite laws intended to address the imbalance. Reliance on temporary contracts creates instability and undermines the quality of judicial services. Moreover, the practice of rotating interim staff between courts to avoid permanent contracts exacerbates these issues, as it prevents the development of specialized expertise.

The analysis of regional disparities in Spain's judiciary civil service exams can be grounded in several theoretical frameworks, including institutional theory, organizational justice theory, and human capital theory^[12]. The decentralized structure of the judicial system in Spain, where some regions (*Comunidades Autónomas*) have greater autonomy than others, may lead to inconsistencies in exam administration and scoring.

In his book entitled "Human Capital"^[13], Becker assumes that education, training, and experience are the primary determinants of success. However, if exam outcomes are significantly influenced by regional differences in examiner bias, available resources, or institutional favoritism, this assumption no longer holds. Any disconnect between theory and reality would underline the need for systemic reform. Civil service examinations are intended to uphold the principles of meritocracy, ensuring that the most qualified candidates gain access to stable and prestigious government positions. However, studies on public-sector recruitment in Spain suggest that biases, lack of transparency (impossibility to get exams

requelified unless legal proceedings are initiated), and inconsistent grading criteria frequently distort these selection processes (Fernández & Gould, 1994; Kellough & Selden, 2003).

The *oposición* process for Procedural Manager (*Gestor Procesal*), a key administrative position within Spain's judiciary, illustrates these challenges. This examination includes both multiple-choice tests (which are objectively scored) and written components assessed by a regional jury. The latter introduces a significant degree of subjectivity, as each autonomous community appoints a panel of five evaluators, leading to potential regional discrepancies in scoring. This study investigates whether such disparities exist and, if so, how they impact fairness in judicial recruitment.

If occurring, disparities extend beyond individual candidates; they affect the social legitimacy of the judiciary and reinforce broader patterns of inequality. Regional disparities in test results may create systemic barriers for candidates from certain areas, potentially limiting their career prospects and contributing to socio-economic divisions. However, factors such as candidate preparation and local education quality could also play a role.

Human resources play a pivotal role in any judicial system. In Spain, the reliance on interim judicial staff (*interinos*) exacerbates labor market inequalities, as a significant proportion of civil servants working in the Department of Justice are interim staff lacking permanent contracts. In 2021, the percentage of *interinos* in the Spanish public sector was estimated at 31% (<https://www.bbvaresearch.com/en/publicaciones/spain-the-labor-market-reform-in-perspective/>; accessed May 21, 2024), with even higher rates in the judiciary^[14]. Despite laws mandating that interim court staff receive permanent contracts, loopholes allow for evasion. Someone working for five years in a single court must be given a permanent position, whereas someone working for 15 years but moved annually cannot secure one^[15]. It is therefore common practice to reassign interim staff between courts to circumvent laws requiring permanent contracts, creating a cycle of job insecurity and professional stagnation.

Judicial independence is essential for maintaining public confidence in democratic governance. However, political interference in judicial administration, inconsistent recruitment practices, and perceived unfairness in career progression contribute to a sense of institutional distrust (<https://doi.org/10.1108/IJPPM-05-2023-0215>; https://commission.europa.eu/document/download/84aa3726-82d7-4401-98c1-fee04a7d2dd6_en?filename=2024%20EU%20Justice%20Scoreboard.pdf)^{[16][17]}. This lack of confidence in the selection process may discourage qualified candidates from pursuing judicial careers, further weakening the

system. Case overload further exacerbates these challenges, causing long delays and affecting the quality of judicial outcomes^[18].

The results presented here challenge the assumption that the *oposición* process is fully equitable and meritocratic, highlighting regional disparities that warrant further investigation. Through an analysis of the *Gestor Procesal* exam conducted in May 2023 (with results published more than one year later; in June 2024), we highlight regional disparities in scoring and passing rates. We have combined statistical analysis with theoretical insights to identify whether there are significant regional differences in exam results and whether certain candidates face systemic disadvantages. Our study also aims to understand how inconsistencies in exam administration impact the overall quality of judicial personnel selection. By addressing these issues, this study contributes to ongoing debates about the role of public institutions in perpetuating or mitigating social inequalities. The findings hold broader implications for recruitment practices in the public sector and the effectiveness of institutional reforms aimed at enhancing fairness and accountability. Exposing inequalities provides valuable insights for policymakers^{[19][20]} and stresses the need for reforms to ensure consistency and transparency in civil service examinations, including standardising assessment criteria, reducing political interference, and eliminating reliance on interim staff.

2. Methods

2.1. Structure of the competition to become *Gestor procesal* in the Spanish Judiciary

The Spanish judicial system is organized such that some Regions (*Comunidades Autónomas*) have some competencies while others do not have any. The competition for the position of *Gestor procesal* (Procedural Manager) is managed by the Spanish Ministry of Justice, with each Region providing the number of available positions. For Regions without competencies, the number of positions is determined by the Ministry. Candidates must select in advance the Region in which they wish to work if they pass the examination; hence, they only compete for a position in the pre-selected Region.

The competition was announced for the *Cuerpo de gestión procesal y administrativa, acceso libre* of the Ministry of Justice, under order "JUS/1254/2022" dated December 7, 2022. The official call can be downloaded from the Spanish *Boletín Oficial del Estado* dated December 19, 2022 (<https://www.boe.es/boe/dias/2022/12/19/pdfs/BOE-A-2022-21485.pdf>). The examination took place in May 2023, simultaneously across various cities in Spain.

The examination consisted of three parts: First, two multiple-choice tests, and a third examination consisting of a written test with five questions. The multiple-choice tests are graded automatically to ensure impartiality, while the written test is evaluated by a panel of five members in each Region with competencies, or by a panel appointed by the Ministry of Justice for Regions without competencies. The final score is calculated by assigning 15% and 60% to the two multiple-choice tests (totaling 75%) and 25% to the written test.

Candidates who do not achieve at least 12.5 points on the written test, i.e., the third exam, will not pass the examination, regardless of their scores on the two previous multiple-choice tests, which together account for 75% of the overall grade. In summary, candidates who do not reach the minimum required score of 12.5 points on the written test will not pass the examination and cannot become civil servants based on the results of the 2023 exam.

The summary of candidates that approved each of the three exams in each *Comunidad Autónoma* is provided in Table 1.

Autonomous Community	N approved exam 3 (% versus exam 1) [%versus exam 2]	N approved exam 2 (% versus exam 1)	N approved exam 1
<i>Andalucia</i>	463 (27) [34]	1359 (79)	1728
<i>Aragon</i>	32 (22) [30]	108 (71)	152
<i>Asturias</i>	15 (19) [23]	63 (78)	81
<i>Canarias</i>	57 (20) [26]	223 (77)	288
<i>Cantabria</i>	10 (40) [56]	18 (72)	25
<i>Cataluña</i>	157 (18) [23]	691 (78)	881
<i>Galicia</i>	98 (23) [29]	335 (78)	430
<i>La Rioja</i>	14 (28) [35]	40 (80)	50
<i>Madrid</i>	167 (17) [23]	729 (74)	987

Autonomous Community	N approved exam 3 (% versus exam 1) [%versus exam 2]	N approved exam 2 (% versus exam 1)	N approved exam 1
<i>Ministerio de Justicia</i>	374 (25) [34]	1116 (74)	1511
<i>Navarra</i>	23 (18) [24]	97 (75)	129
<i>Pais Vasco</i>	50 (15) [20]	253 (75)	338
<i>Valencia</i>	129 (14) [19]	688 (76)	903

Table 1. Number of candidates approved in each of the 3 exams of the competition for *Gestor procesal* (2023 exams)

2.2. Data collection

Data are retrieved from official sources; the URL from which it is possible to access all documents is: <https://www.mjusticia.gob.es/es/ciudadania/empleo-publico/acceso-libre/gestion-procesal-administrativa-acceso-libre-orden-jus-1254-2022>.

All the scores of the written tests of each of the autonomous communities have been considered. Each of these regions designates a five-member panel responsible for grading and evaluating candidates who took exams in that specific region. When indicated, the scores of the written test, which is the third to be administered, will be compared with the two previous tests, the first and the second, which are multiple choice and are scored automatically and, therefore, impartially. All candidates take the written test, but only those candidates who pass the first two exams are qualified. The number of candidates in Spain that passed the two first exams and qualified for the third one was 5,757. The number of candidates that

passed the third exam was 1589. Passing all three exams does not guarantee a place, as places are awarded based on overall scores. Candidates who pass all exams but score relatively low may not meet the cut-off mark set by the last available position. For instance, if a Community has 200 places and one candidate ranks 201st in this Community, he/she will not secure a position as a civil servant.

2.3. Data analysis and statistical methods

Scores from candidates in *Andalucía*, *Canarias*, *Cataluña*, *Comunidad Valenciana*, *Galicia*, *Comunidad de Madrid*, and *País Vasco* were considered. Additionally, data from candidates in regions without competencies in justice, managed by the Spanish Ministry of Justice, were also included under the term *Ministerio de Justicia*. Unless otherwise indicated, data from regions with a small number of candidates (*Aragón*, *Asturias*, *Cantabria*, *La Rioja*, and/or *Navarra*) were omitted from analyses.

3. Results

3.1. Deviation from Gaussian Distribution

Normality tests were initially conducted using the scores of all candidates in the third exam. Exam 3 consists of 5 questions, with a total score of 25, meaning a score of 12.5 is required for approval. Despite the large sample sizes in several regions, the data did not exhibit normality. Upon examining the data by region, it was found that all regions, except Galicia and País Vasco, lacked normality. The p-values from the Shapiro-Wilk test (threshold $p=0.05$) for these two regions were 0.137 and 0.152, respectively.

Next, the frequency versus score distribution was examined in regions where the data did not conform to normality. Figure 1A shows the frequency versus third-exam-score plot for *Canarias*, which is highly skewed to the left, indicating a concentration of low scores. This skewness could be attributed to the relatively small number of candidates in this region. For comparison, *Comunidad de Madrid*, a region with a larger number of candidates, was selected. The plot from this region also exhibited an atypical distribution, being biphasic. Notably, there is a significant spike in the number of candidates scoring around the cut-off value of 12.5 (Figure 1B).

The non-Gaussian distribution in most regions cannot be readily explained from a statistical perspective. This anomaly suggests that other underlying factors may be influencing the distribution of scores.

3.2. Inter-regional variability of third-exam scores

Scores range between 0 and 25. The mean (SD) at the national level, excluding regions with few candidates, is 9.72 (4.28) (n= 5408). The mean and SD of the scores for candidates in each region are provided in Table 2. All average values are below 12.5, as expected, due to the lower proportion of candidates who passed compared to those who failed.

The highest global mean score is found in *Andalucía* (10.62), and the lowest is in the *Comunidad Valenciana* (8.54), followed by the *Pais Vasco* (8.56). When only approved candidates are considered, the highest average is found in *Canarias* (16.01), and the lowest is in *Pais Vasco* (14.12), followed by *Cataluña* (14.38). When only those who failed are considered, the highest average is found in *Andalucía* (8.51), and the lowest is in *Canarias* (6.25). In *Canarias*, the difference between the averages of approved versus failed is huge ($16.01 - 6.25 = 9.85$). The minimal distance between averages is found in *Cataluña* ($14.38 - 8.27 = 6.11$).

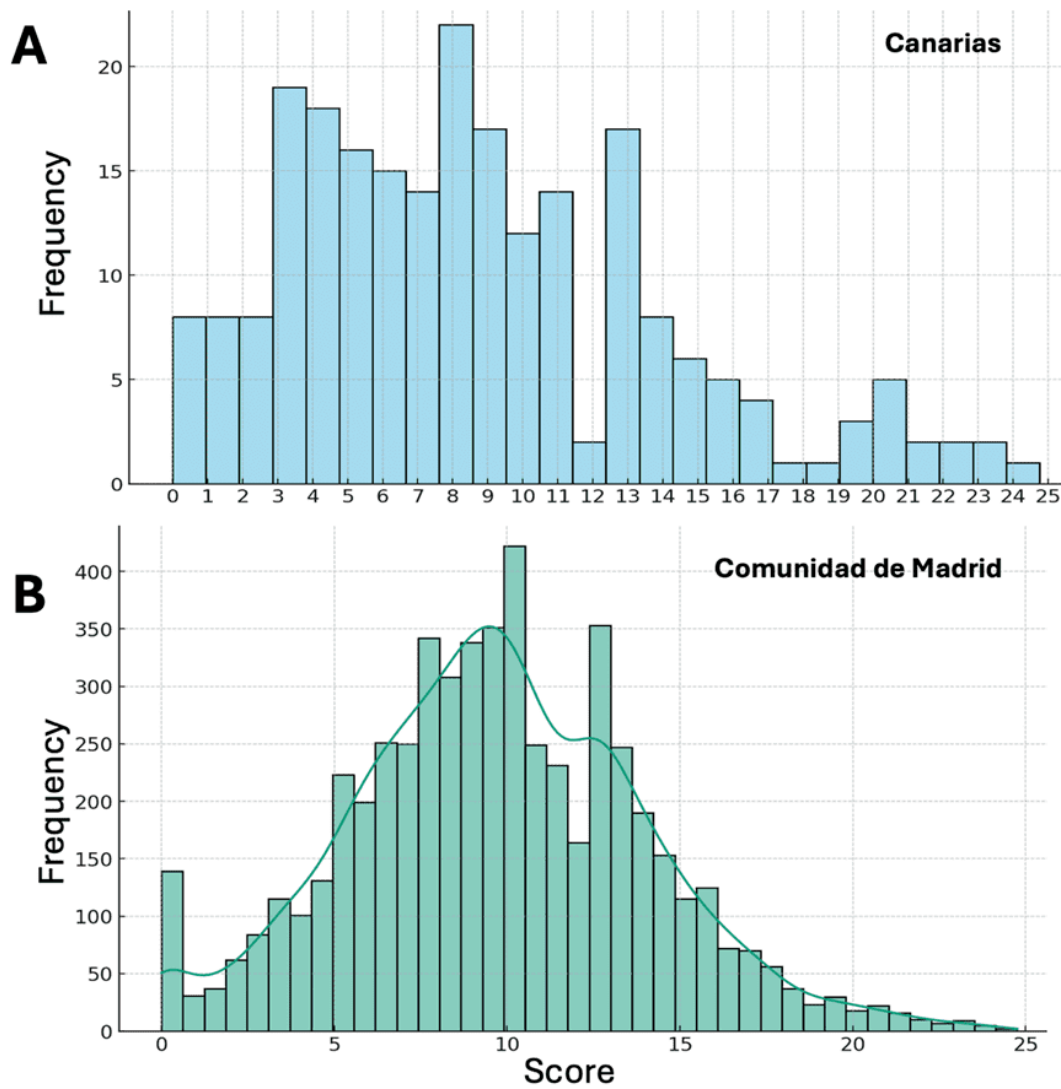


Figure 1. Distribution of qualifications of exam 3 in two different regions, *Canarias* and *Madrid*. None of the two distributions is Gaussian.

Region (Comunidad Autonoma)	% approved (n=total)	Mean (SD)* Global qualification	Mean (SD) Only approved	Mean (SD)* Only failed
Andalucia	33.8% (1370)	10.62 (3.98)	14.74 (2.12)	8.51 (2.91)
Canarias	24.8% (230)	8.67 (5.29)	16.01 (3.53)	6.25 (3.06)
Cataluña	22.4% (701)	9.64 (3.60)	14.38 (2.04)	8.27 (2.66)
Comunidad Valenciana	18.4% (697)	8.54 (4.39)	15.47 (2.52)	6.98 2.98
Galicia	28.3% 346	9.96 (3.83)	14.59 (1.78)	8.13 (2.72)
Madrid	23.0% 726	9.79 (4.70)	16.33 (2.58)	7.84 (3.17)
Pais Vasco	20.0% 250	8.56 (3.91)	14.12 (1.95)	7.17 (2.90)
Ministry of Justice	33.3% 1122	9.75 (4.39)	14.69 (2.44)	7.29 (2.78)

Table 2. Mean and SD of qualifications of exam 3 per region*. Maximum score is 25. The score for approval is 12.5.

* **In bold** when SD versus the mean is markedly high (>38%)

Another parameter that can provide valuable information is the difference between the mean scores of approved candidates and failed candidates within a given community. The data are presented in Table 3. In several regions, the differences were excessively high. Differences of 8 or more were observed in *Aragon, Asturias, Canarias, Comunidad Valenciana, and Comunidad de Madrid*. These results highlight

notable variability across the regions, also confirming that the trend in score differences between approved and failed candidates varies markedly from one autonomous community to another.

<i>Comunidad Autonoma</i>	Mean scores <12.5	Mean scores ≥ 12.5	Distance of the two means
<i>Andalucia</i>	8.51	14.74	6.23
<i>Aragon</i>	6.17	15.19	9.02
<i>Asturias</i>	6.59	14.59	8.00
<i>Canarias</i>	6.25	16.01	9.76
<i>Cataluña</i>	8.27	14.38	6.11
<i>Comunidad Valenciana</i>	6.98	15.47	8.49
<i>Galicia</i>	8.13	14.59	6.45
<i>La Rioja</i>	7.98	13.59	5.61
<i>Madrid</i>	7.84	16.33	8.49
<i>Ministerio de Justicia</i>	7.29	14.69	7.40
<i>Navarra</i>	6.53	14.13	7.60
<i>País Vasco</i>	7.17	14.12	6.95

Table 3. Differences between the mean of approved (score ≥ 12.5) versus non-approved candidates (<12.5) in exam 3. Cantabria is omitted due to low number of candidates

3.3. Disparities in exam 3 scoring depending on the region

Due to the lack of Gaussian distribution in the qualifications in each region (with the aforementioned exceptions of *Galicia* and *País Vasco*), comparisons were performed using a non-parametric statistical method. Accordingly, the Kruskal-Wallis test was used to evaluate whether there are statistically significant differences between the autonomous communities for both <12.5 and ≥ 12.5 scores. The results of the Kruskal-Wallis test indicate statistically significant differences between the autonomous communities in both data groups (the complete data set is provided in Supplementary Table S1, available from the corresponding author). For ≥ 12.5 and <12.5 scores the statistic is, respectively, 102.06 and 216.70.

In both cases the p-value was $<1.0E^{-30}$, which indicates significant differences in qualifications (<12.5 and ≥ 12.5) depending on the region.

Using a goodness-of-fit test, the probability of passing in different regions was analyzed. Data from Supplementary Table S1 were used, excluding Cantabria due to its small sample size of only 18 candidates (9 approved and 9 failed). Considering the total number of candidates and the approval/rejection rates with respect to the overall results in Spain (5,757 candidates with an approval rate of 27.5%), it was demonstrated with a very significant result (p value = $1.72E^{-11}$) that the probability of passing was different in each *Comunidad Autónoma*. It is therefore concluded that students from some autonomous communities have been less likely to pass than students from other autonomous communities.

Due to a lack of Gaussian distribution of scores in many of the regions, the Mann-Whitney test was used to compare scores in *Cataluña* and *Comunidad de Madrid* with those of other regions. Scores in *Cataluña* were significantly different from those in *Andalucía*, *Canarias*, *Comunidad Valenciana*, and *País Vasco* ($p < 0.001$), but not from those in other regions or the Ministry of Justice ($p > 0.1$; range: 0.19 to 0.98). Similarly, scores in *Comunidad de Madrid* were significantly different from those in *Andalucía*, *Canarias*, *Comunidad Valenciana*, and *País Vasco* ($p < 0.001$), but not from those in other regions or the Ministry of Justice ($p > 0.1$; range: 0.26 to 0.98). Notably, the differences in both *Cataluña* and *Comunidad de Madrid* were with the same regions: *Andalucía*, *Canarias*, *Comunidad Valenciana*, and *País Vasco*.

The study of the interaction **pass * region** reveals significant differences (with a p-value $< 1 \times 10^{-16}$ using the Kruskal-Wallis test). The results show that the average score of those who passed the third exam (score ≥ 12.5) is the highest in the *Comunidad de Madrid*, 16.33, while the lowest is in *Cataluña*, 14.38 (p-value = 0.0247 after correcting for multiple comparisons using the Benjamini-Hochberg method). The analysis of all ≥ 12.5 scores classifies the autonomous communities into three homogeneous groups, that is, with similar statistical parameters (mean and SD). Groups are: i) *Comunidad de Madrid*, ii) *Canarias*, *Comunidad Valenciana*, *Andalucía*, and *Galicia*, and iii) *Ministerio de Justicia*, and *Cataluña*. Group i includes the region with the highest scores, and the scores decrease in regions in group ii; group iii contains the regions where the passing scores were the lowest. Significant differences were found between groups i and iii. The differences were not statistically significant between group ii and group i or between group ii and group iii. These results confirm the disparities between the autonomous communities. Overall, approved candidates in *Comunidad de Madrid* are more likely to obtain higher scores in exam 3 than those in *Cataluña* or in *Ministerio de Justicia*.

3.4. Comparing data from the most complete multiple-choice test (exam 1) and the written test (exam 3)

A final objective was to compare the scores of the written test with one of the two multiple-choice tests. We only selected one of the two multiple-choice tests. Data from exam 2, which consists of 15 multiple-choice questions and accounts for only 15% of the overall grade, were omitted. Our analysis focused on candidates who qualified for exam 3, meaning they had passed both exam 1 and exam 2 and had completed exam 3. Specifically, we compared the scores of exams 1 and 3. Since exam 1 accounts for 60% of the overall qualification and Exam 3 accounts for 25%, all scores were normalized to a scale of 0 to 100 for consistent comparison. For the multiple-choice test (exam 1), the scores of only the approved candidates were considered (normalized values ranging from 50 to 100). We hypothesized that there should be a correlation between the scores of the written test (exam 3), corrected by a jury of five members, and the multiple-choice exam (exam 1), which is graded impartially. Table 4 summarizes the correlation data (in the normalized 0-100 scale) in each region, also showing the average. Figure 2 graphically highlights the two most relevant findings of the analysis: (a) the correlation varies significantly between regions, as evidenced by pairwise comparisons, and (b) the slope of the linear correlations differs markedly across regions, from 0.26 to 0.62 (Table 2). It should be noted that, theoretically, the intercept on the Y-axis represents the multiple-choice test score of an individual who would receive a zero on the written test. Intercepts go all the way from 39 to 65 (Figure 2); this huge range of variability further reinforces interregional inequalities. Moreover, the grade that theoretically corresponds to someone who passes exam 1 with the minimum grade (value of Y when X=50) should have been 68.64 in *Cantabria* and 80.36 in *Canarias*, further underscoring regional disparities.

Comunidad Autónoma	Intercept	Slope	Mean Exam 3 (only approved)	Mean Exam 1 (only approved)	Y value for X=50	X value for Y=50	R ²
Andalucía	55.96	0.40	58.96	79.66	76.06	-14.84	0.14
Aragón	65.24	0.26	60.75	80.88	78.11	-59.19	0.17
Asturias	39.32	0.62	58.32	75.73	70.53	17.11	0.26
Canarias	65.41	0.30	64.05	84.57	80.36	-51.54	0.3
Cantabria	51.53	0.34	56.33	70.81	68.64	-4.49	0.11
Cataluña	50.38	0.53	57.54	81.14	77.11	-0.72	0.21
Galicia	47.32	0.57	58.35	80.86	76.06	4.66	0.26
La Rioja	52.91	0.45	54.36	77.43	75.46	-6.44	0.27
Madrid	57.59	0.38	65.33	82.47	76.63	-19.92	0.16
Ministerio	59.97	0.32	58.74	78.72	75.93	-31.24	0.1
Navarra	56.48	0.44	56.52	81.13	78.29	-14.86	0.32
Pais Vasco	56.75	0.47	56.50	83.04	80.01	-14.50	0.18
Valencia	56.1	0.43	61.95	82.69	77.56	-14.21	0.23

Table 4. Correlations between exam 1 and exam 3 scores across candidates and regions. To facilitate comparisons, the scores in this table and in Figure 2 are normalized on a 0-100 scale, meaning that the maximal qualification in exam 3 is normalized to 100 and the maximal qualification in exam 1 is normalized to 100.

4. Discussion

Certain branches of the administration of the Kingdom of Spain are partially decentralized to the regions, known as *Comunidades Autónomas*. The Spanish judicial system operates similarly to that of a federal country, albeit with some unique characteristics. Notably, the control over human resources for permanent positions lies entirely with the Spanish central government, from the lowest roles to judges. Regions are limited to nominating temporary workers, or *interinos*, for non-permanent positions.

Permanent positions within the judicial system are filled through a competitive examination process (*oposición*), consisting of standardized exams administered across all regions. Given that the number of candidates far exceeds the available positions, the legislator has endeavored to design a scoring system that ensures fairness. However, as this paper demonstrates, this objective has not been met for the position of *Gestor procesal*, the third rank in the hierarchy after the roles of judge and judicial secretary, which both require a law degree.

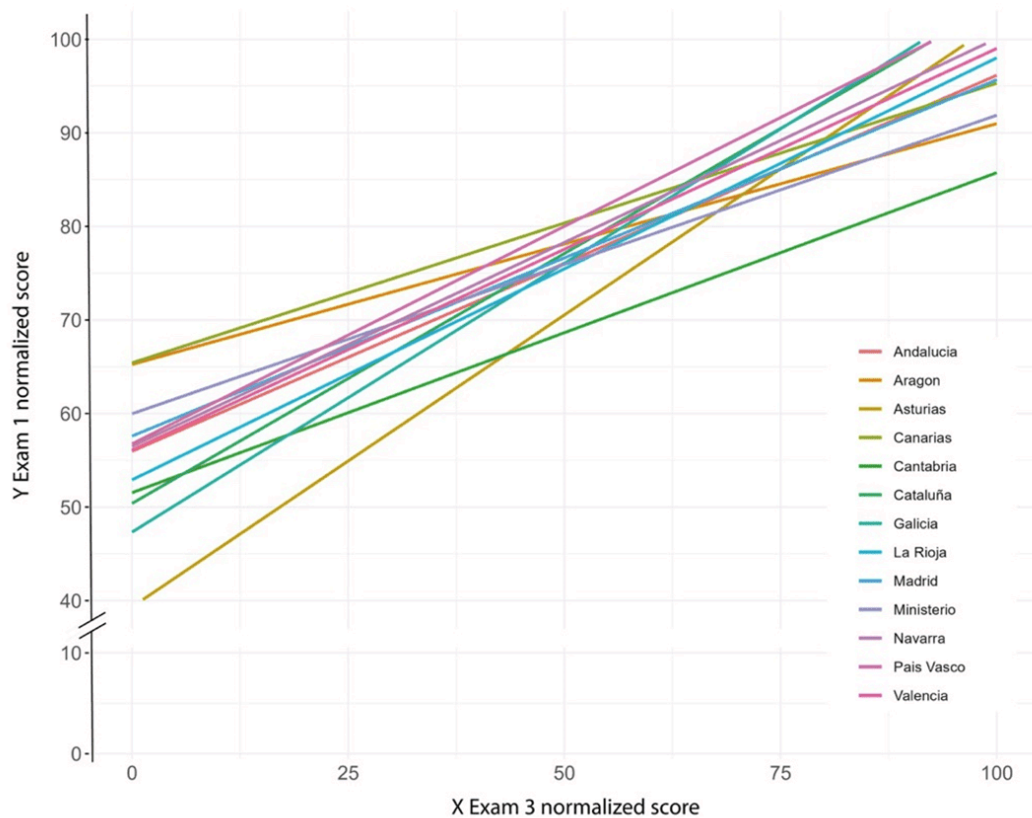


Figure 2. Linear regression using the individual normalized scores of Exam 1 and 3. For ease of comparison, scores are normalized on a scale from 0 to 100. 100 on the Y axis would correspond to the highest score for exam 1, which is 60. 100 on the X axis would correspond to the highest score for exam 3, which is 25. Successful candidates are those who in this figure have a score equal to or greater than 50. It should be noted that only candidates who pass the previous 2 exams are entitled to have exam 3 corrected.

The statistically significant differences in third-exam qualification results reveal marked variability across both the upper and lower segments of the grades. This variability may reflect differences in educational standards, available resources, or evaluation criteria among the regions. Based on the data provided here, the most plausible hypothesis is that there are differences in evaluation criteria both within and between regions. Notable exceptions to intra-region homogeneity of criteria are *Galicia* and *País Vasco*, as their score distributions are normal (*Galicia*: mean = 9.96, SD = 3.83, n = 346; *País Vasco*: mean = 8.56, SD = 3.91, n = 250). Given these normal distributions, a t-Student's test was conducted to compare the mean scores of the two regions, revealing significant differences ($p = 0.000016$). This finding indicates that even in regions with homogeneous intra-region criteria, the inter-region criteria differ significantly.

It is concerning to observe the significant interregional variability in the grades received by candidates who passed exam 3 and were expected to achieve similar results in exam 1. The marked differences in the slopes when comparing exam 1 and exam 3 scores are quite revealing (disclosed in Figure 2 and Table 4). This suggests, once again, that rating criteria may have varied considerably across regions.

The unfairness of the current system for obtaining a position as *Gestor procesal* in the Spanish judiciary is inherent in the competition's design. Firstly, the examination is conducted on a regional basis, with each region allocating a specific number of positions. The exam is the same across all of Spain but takes place in each of the regions. Also, each region has its "own" jury composed of 5 members. Their role is eminent for correcting exam 3, which consists of 5 questions to be answered in written form. Our findings suggest that candidates' scores for exam 3 may vary depending on the region in which they take the exam, though other factors, such as candidate self-selection, could also influence outcomes. Additionally, the five members of each jury are not homogeneous, as each is selected based on different criteria, ranging from political to academic backgrounds. This diversity complicates the process of achieving fair and consistent evaluations. Furthermore, passing all the exams does not guarantee a position; for instance, a candidate who ranks 201st in a region with only 200 available positions will not secure a place. Conversely, a candidate who ranks 201st in one region might have a high enough score to obtain a position in another region. Despite this, candidates are not allowed to transfer their scores between regions, as they must select their region prior to taking the exam.

The overall issue of inter-regional disparities could be minimized by using only multiple-choice exams, which allow for unbiased scoring. However, it is essential for a *Gestor procesal* to demonstrate proficient writing skills, making it necessary to assess candidates' written communication abilities^[21]. This

necessitates an exam with written responses. While feasible with a small number of examinees, when thousands of candidates are involved and multiple juries are required, the results deviate from the expected fairness. Our findings indicate that the written exam is the primary source of such unacceptable inter-regional disparities in hiring *Gestores procesales* in the Spanish judiciary. There is an issue arising from the fact that the examination for this position includes a written test that requires both legal knowledge and proficient writing abilities. In our opinion, it is not advisable to combine the assessment of legal knowledge with the evaluation of writing skills. In addition, an evaluator who is proficient in assessing legal knowledge is likely not adept at evaluating writing quality, and vice versa.

A limitation of our study is the absence of individual scoring data, which prevents us from analyzing intra- and inter-regional variability in scoring each question by the 5 members of each jury. This data gap hinders our ability to identify which juries provided more consistent scores versus those with more divergent results.

Failing to secure a permanent position through the competition is a significant concern for candidates^[22], especially for roles like *Gestor procesal*, which require extensive preparation. In fact, the exam for a *Gestor procesal* requires knowledge of all the laws of the Spanish state, which is equivalent to what is required to become a judge. On top of this, disparities that are easily detectable at the individual level cause a lack of trust that is noxious to the whole society. To address these inequalities, potential solutions include redesigning the competition process—such as allowing each region to hire its own *Gestores procesales*—and ensuring fairness through rigorous evaluator training and adherence to standardized rules^{[23][24]}. Overall, the outcome raises ethical concerns about the legitimacy of the Justice Ministry's system of recruiting civil servants when written exams are included in the selection process.

5. Conclusions

The main conclusion is that the analysis of the exam results for becoming a judicial manager for the Ministry of Justice has revealed significant injustices. These are not due to intentional actions by any exam administrators, but rather due to a flawed design of the entire process.

The current system for selecting the position of *Gestor procesal* in the Spanish judiciary demonstrates significant regional disparities in scoring, indicating that candidates' chances of success can be heavily influenced by the region in which they take the exam.

The inclusion of written exams, assessed by multiple juries with diverse backgrounds and criteria, contributes significantly to inter-regional bias, leading to unfair outcomes for candidates.

Although regions like *Galicia* and *País Vasco* show homogeneous intra-region criteria, the significant differences in their mean scores highlight that inter-region evaluation criteria are not standardized.

To ensure fairness in the selection process, it is recommended to separate the assessment of legal knowledge from writing skills, using multiple-choice tests for the former and case-solving or commentary tasks for the latter. Additionally, a more uniform approach to jury selection and scoring criteria is necessary to minimize bias.

Supplementary material

Supplementary Table S1 is available from the corresponding author upon reasonable request.

Statements and Declarations

Author contribution

Conceptualization: RF. Data collection: RF, JSM, and DBC. Statistical analysis: JSM and DBC. First draft: RF, JSM, and DBC. All authors edited the paper and approved the version submitted.

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Supplementary data: available at <https://doi.org/10.32388/EJPYG4>

Declarations

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.