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# Comparative International Study of Court Performance Indicators

A Descriptive and Analytical Account

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Edgardo Buscaglia and Maria Dakolias



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# Contents

Introduction .....	1
Systems in Developed and Developing Countries .....	2
Methodology .....	7
General Findings and their Significance .....	9
Results of the Survey .....	10
Factors that Affect Procedural Time .....	13
Capital Budgets and Technology .....	15
How Judges Spend their Time .....	17
Cost per Case, Budget Resources, and Cost Elasticity of Supply ..	18
Insignificant Factors (Number of Staff, Salaries, Level of Training) .....	19
Factors that Affect Clearance Rates .....	20
Significant Factors (Technology, Capital Budget, Cost Elasticity, Administrative Time) .....	20
Insignificant Factors (Salaries, General Budget, Resources, Number of Staff) .....	22
Conclusion .....	24
Annex .....	26
Judge Questionnaire .....	29
Notes .....	37



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## A Descriptive and Analytical Account

### Introduction

There is a growing awareness that a judiciary able to resolve cases in a fair and timely manner is an important prerequisite for economic development. In many developing countries, the judiciary is not consistent in its conflict resolution, and carries a large backlog of cases, stifling private-sector growth and causing the erosion of individual and property rights. Governments worldwide are embarking on programs of judicial reform to resolve these problems.

This report discusses the findings of a quantitative survey of the factors affecting the efficiency of the judiciaries in 10 developing and developed countries on three continents. The report uses a jurimetric analysis<sup>1</sup> to measure how procedural times and clearance rates<sup>2</sup> are affected by a variety of factors, ranging from budget-related variables to the managerial style of the judge. These factors can be grouped into three main categories: procedural, administrative, and organizational.

The report explains why enhancing court performance must be a key objective of judicial reform. This is particularly true in a decade in which many countries have experienced a surge in demand for judicial services. The report explains how each factor affecting court efficiency was identified, and how information relating to that factor was gathered and analyzed. It concludes by exploring the results of the analysis—how each factor affects procedural time and clearance rates—and the significance of these results for judicial reform programs.

We hope that our analysis will help judiciaries identify the factors that most affect their performance, and therefore help them orient and design appropriate reforms. Many of our conclusions debunk common perceptions of which elements are important for improving judicial performance.

It is important to note that in identifying these factors we focused on only one aspect of judicial effectiveness: that is, how well resources are used in generating court output. Court output, or court efficiency, can be measured in terms of the elasticity of supply of court services, procedur-

al time, and clearance rates. Inefficiency causes delays, which raise litigant-related costs; higher costs in turn impede user access to the courts, and thereby damage faith in the legal system. Efficiency is therefore an important aspect of a judiciary's effectiveness.

We chose to focus on efficiency as a measure of court performance because it provided a quantifiable means of comparing courts worldwide. However, justice has many other dimensions, and judicial reforms often strive for less quantifiable changes, such as improving the independence of the judiciary and enhancing procedural transparency. It is important to keep this distinction in mind, because factors that affect efficiency do not always improve the overall quality of justice, and in some cases can even undermine it. By the same token, some factors that do not affect efficiency do affect the quality of the delivery of justice.<sup>3</sup>

### **Systems in Developed and Developing Countries**

An effective judiciary offers access for the population, and provides predictable results and adequate remedies. Many judiciaries, however, suffer from a dysfunctional administration of justice, lack of transparency, and a perception of corruption. The basic elements of an effective judicial system may be missing, including relatively predictable outcomes within the courts; accessibility to the courts by the population, regardless of income and educational level; reasonable time to disposition; and adequate court-provided remedies. In cases such as these, lack of confidence in the administration of justice runs high, and is most pronounced among small economic units and low-income families.

Democratization, growing urbanization, and the adoption of market reforms have created additional demands for court services throughout the regions examined in this study. These three factors have increased the complexity of social interactions, making the improvement of judicial conflict-resolution capabilities even more necessary. The shift of most economic transactions toward the market domain and away from the public administrative sphere has created an unprecedented increase in private-sector demand for clearer definition of rights and obligations, and an increasing demand for civil justice. Germany is one of the leaders in this area, experiencing a 37 percent increase in civil cases since 1984.<sup>4</sup>

The judiciary's inability to satisfy the growing demand for dispositions, as recorded in this study, is one of the most challenging and important aspects of judicial reform.<sup>5</sup> Greater backlogs and time delays are common—statistics show that delays in U.S. courts, for example, increased during 1976–1987.<sup>6</sup> It can be argued that the incentives faced by judges and court personnel are at the heart of these problems in many countries. Politicized appointments, lack of quality control standards for



work performed by judges and court personnel, lack of proper requirements for career entry and promotions, and lack of a practical model against which to assess the character and psychological suitability of applicants for the position of judge all add up and contribute to the poor performance of courts. This is despite the huge sums of money spent on higher salaries and better technologies in most of the countries sampled. In addition, these delays may be attributed to procedural defects. Other reasons are the lack of legal training, the absence of an active case-management style, and the excessive administrative burden that falls on some judges. One study found that Argentine judges spend approximately 70 percent of their time on nonadjudicative tasks. In Peru, the figure is 69 percent.

Poorly trained judges in an overburdened legal system are also susceptible to corrupting influences, and therefore create an environment where the rule of law cannot be guaranteed. The use of *ex parte* communication is one aspect of legal practice that especially contributes to this perception, and there are accusations that cases are decided in *ex parte* meetings. All of the problems mentioned above also add cost and risk to business transactions and thus reduce the potential size of key markets. At the same time, access to justice is blocked to those who cannot afford the expense of waiting through court delays.

These inefficiencies become more problematic as market reforms trigger private-sector demand for a clearer definition of rights and obligations. Lack of timely resolution of conflicts raises costs and creates uncertainty, and can obstruct the development of the private business sector. When parties do not trust that a contract will be enforced, they limit their transactions to business partners who have a strong reputation or with whom they have dealt in the past, thus precluding start-ups or other unknown players. Consistent interpretation and application of the laws are necessary to provide a stable institutional environment where the long-term consequences of their economic decisions can be assessed by both businesses and the public.

Clearly, there is a need for a change in legal culture, as well as a systematic change in the delivery of justice. Although the entire reform process may take generations to run its course, the effects of judicial reform will be felt by everyone—the private sector, the public, the legal community, and members of the judiciary. Ultimately, the private sector and the public should be able to rely on an efficient and equitable system that is respected and valued.

Many of the countries included in this study have implemented their own reforms, with differing results. Some have implemented a few isolated reforms, while others have developed broad reform programs. The discussion about which reforms are successful continues. This study does

not aim to describe the immense wealth of experiences that the judicial systems of these countries offer, but a brief review of some of their main reforms provides a glimpse into the performance of their courts. France, Ukraine, Hungary, Singapore, Panama, Chile, Peru, Ecuador, Argentina, and Colombia were analyzed. Many of these countries are undertaking judicial reforms, others are contemplating reforms, and still others are studying their courts. Although many of the countries are in Latin America, a small sample from Europe, Eastern Europe, the former Soviet Union, and Asia have also been included in the study. These countries may be at different stages in development and at different stages of reform, but they offer a rich sample for comparison. France has been included to enable comparison with the systems of a developed country. Singapore was included because its recent judicial reforms have made a remarkable difference in efficiency; it should also be noted that Singapore is the only common-law legal system among the sample.

The countries that have experienced positive results, in terms of efficiency, from their reforms during 1990–96 include France, Peru, Singapore, Chile, and Panama. All these countries have clearance rates in excess of 89 percent, which although not perfect is more efficient than many countries. One should bear in mind, however, that some of these legal systems are criticized for a lack of independence, transparency, or trust in the judiciary. Although the Chilean judiciary has a good reputation relative to other Latin American systems, for example, there is talk of needed reforms. There have been efforts to evaluate judges in their performance, however, and this has created positive improvements in the incentive system. The country's reform efforts have placed its judiciary among the most efficient of the countries sampled in the region.

France is an example of a judiciary that uses a cooperative administrative system. The *Tribunal de Commerce* is supported by the Office of the Greffier—the clerks of the court—which is responsible for the filing and administering of cases.<sup>7</sup> The judges do not spend time on administration like their colleagues in Latin America, and this has proved efficient. They are also not burdened by such large caseloads—on average, each judge receives fewer than 300 new cases per year.

In Panama, the reforms have benefited from merit-based competition for judicial positions.<sup>8</sup> Although the Supreme Court is charged with the administration of the judicial branch, an Administrative Secretariat was established under the Court in 1990 to manage the administrative, financial, and personnel issues of the judiciary. In 1993, a judicial school was established under the Supreme Court with courses geared toward training newly appointed and current judges. Together with administrative changes and increases in the capital budget, efficiency has increased to respectable levels.

Peru has seen a dramatic change in the courts since 1992, when the Executive Board (*Consejo Ejecutivo*) and a judicial management office were created for the overall administration of the courts.<sup>9</sup> The 1993 Constitutional Reform established the National Council of the Magistracy (*Consejo Nacional del la Magistratura*) to select, appoint, ratify, and remove judges and prosecutors of all levels.<sup>10</sup> Investment in the judiciary began with the purchase of new computers for the courts in Lima, and judicial information booths have been installed to give the public better access to information. Peru has also established model courts on the pattern of a cooperative administrative system, and this has both decreased the time judges spend on administration and increased clearance rates.

Singapore has undertaken substantial reforms in the 1990s to improve court efficiency, making large capital investments in both 1991 and 1996. A common administrative office has allowed the judges to shed all administrative responsibilities. In addition, litigants are no longer entitled to unlimited use of court time without an increase in cost, and cannot agree to extend the time for setting a matter down for trial or for filing an appeal. Singapore has also introduced the Technology Court, a videoconferencing system that allows lawyers to examine witnesses anywhere in the world.<sup>11</sup> These changes have greatly increased court efficiency. It should, however, be noted that Singapore's quality of justice is questioned by many.

The other countries sampled have not shown great improvements in their efficiency levels, despite the reforms they have implemented during this period. These countries include Ecuador, Ukraine, Colombia, Argentina, and Hungary. They have clearance rates of less than 79 percent, which indicates that the number of pending cases continues to mount, increasing the burden on the courts and the delays for the parties concerned. These countries need to reexamine their judicial systems to determine what reforms are missing and which perhaps did not work.

Reforms undertaken in Colombia include a 1991 constitutional reform that created the Judicial Council (*Consejo Superior de la Judicatura*). The council is in charge of discipline and administrative matters such as human resources, operations, and finance, and is also responsible for defining career tracks for judicial employees. Reforms previous to the 1991 constitutional changes included the creation of the Common Clerks Offices in 1987, which introduced technology to the courts, and the 1989 creation of the *Oficinas y Unidades Judiciales*, which lends technical, systems, and judicial support to the courts. But even with a significant increase in the number of personnel in 1991, the reforms have not improved clearance rates sufficiently to allow Colombia to address the demands placed on judges. This may be because judges here are faced with additional issues of security.

In December 1992, Ecuador similarly passed a series of constitutional and statutory changes to the judicial system. These doubled the size of the Supreme Court, created a Judicial Council (*Consejo Nacional de la Judicatura*), redefined the jurisdictional role of the Supreme Court, created a new mechanism for the selection of judges, and increased the judicial budget and salaries. In late 1995, the Congress passed other constitutional provisions mandating the decentralization of the judiciary and the use of alternative dispute-resolution mechanisms. These changes have not had a dramatic effect on the efficiency of the courts, however, because they have not been coupled with the increase in the capital budget that would permit investment in technology. Capital increases were in fact made only recently, and it is too early to determine the results. One other positive change has been the removal from office this year of 10 judges for behavioral transgressions. By removing these judges, the Judicial Council has taken a very public step to improve accountability in the courts.

Hungary has experienced several changes in the jurisdiction of the courts, and these have caused an increase in cases filed. Specifically, a 1993 procedural reform that changed the jurisdiction of the County and District Courts caused a sharp increase in the cases filed in the District Court in Budapest. No reforms have been implemented yet to address this increase— although the courts' budgets increased, the extra money was not allocated for capital costs.

Ukraine has experienced a difficult adjustment to a market economy. There has been an overall drop in the number of cases filed, but little investment has been made in the courts and they have not improved their performance. The judiciary lacks a suitable physical infrastructure and modern technology—including typewriters and photocopiers.<sup>12</sup> This has created a situation in which the courts are unable to address their current caseload and their problems of inefficiency.

Argentina, in contrast, has seen a steep rise in the number of cases filed, and these have caused an overload that the judiciary is ill-prepared to handle. The country created a Judicial Council under the 1994 constitutional reform, but this has only recently begun operations. A law mandating mediation for all civil cases in federal courts in Buenos Aires has been successful however, and the Supreme Court, a vital part of the judicial reform process, has also made changes. The Court now has an administration branch that includes offices for Information Systems, Infrastructure, Notifications, Finance, Human Resources, and Management. These offices, headed by the General Administration Secretary, have improved the Court's ability to plan for its future needs. But although there has been an effort to make administrative changes, the judges are still burdened with excessive administrative duties. In addi-

tion, 95 percent of the budget is dedicated to operational costs, and very little to capital investments. Overall, the courts have not seen an improvement in the efficiency of case resolution. Additional reforms are planned.

## Methodology

The aim of this study is to describe and explain, as far as statistically possible, the differences in the performance of court systems within a sample of developed and developing countries. Significant differences in court performance are identified and related to common international denominators that can be addressed in future judicial reforms. These variables have been collected in order to identify trends in court performance worldwide.

This analysis is based on information from the federal first-instance courts that have jurisdiction over commercial cases.<sup>13</sup> Information related to salaries, caseloads, budgets, and personnel was gathered for each of the sampled courts. The general budget allocations of each of the specific sampled courts were then calculated. In addition, a survey was made of each court, including a study of the time allocated to different tasks. This was for the most part answered by the judges themselves<sup>14</sup> (see survey, attached). The objective of the survey was to assess how the different characteristics of the cases sampled—for example, the complexity of a case—affect the productivity of the judge and court personnel, and to evaluate how managerial style and case complexity affect processing time.

Judicial perceptions of the court environment are an important complement to empirical data in explaining court performance. Although these perceptions are subject to bias, they provide additional data that enriches the empirical results. These perceptions have not been compared with an empirical study on case time, however, due to the excessive cost of such a comparison.

The framework used for this study relates input variables—the different types of human and nonhuman court resources—with output variables that measure the supply of court services. Our aim was to determine how the supply of court services in commercial cases tried by first-instance courts is affected by different input variables. For the purpose of this study, we used statistical techniques to identify the input variables that have most impact on the performance of the court systems.<sup>15</sup>

The main output variables to be considered are the expected duration of commercial cases, measured in days); the clearance rates; and the cost elasticity of the supply of court services. The expected duration of commercial cases measures time to disposition, and the clearance rate measures the proportion of cases filed per year per court that are disposed

during that same year. Cost elasticity determines the percentage change in the number of cases disposed per court that would be produced by a 1 percent change in the allocation of budget resources to that court. A large elasticity of supply, such as 4, would indicate that a 1 percent increase in the allocation of money to the court in question would produce a 4 percent increase in the number of disposed cases. These output variables are tested and related against the input variables.

The input variables considered here and their projected effects are as follows:

1. Budget devoted to capital resources—i.e., fixed assets and tangible-intangible capital spending. We expected that an increase in capital spending would increase clearance rates, increase the elasticity of supply of court services,<sup>16</sup> and decrease the expected duration of a case disposed. The latter is measured in terms of the Cappelletti Index, where the expected duration of a case in a specific court is found by dividing the number of pending cases at the end of a year by the number of cases disposed that same year. We expected results to show that more infrastructure coupled with more court equipment would tend to increase the capacity of a court to dispose of cases in less time.
2. Budget resources allocated to each court. We expected to find the same effect as in the variable capital spending—that an increase in this variable would increase clearance rates and elasticity, and decrease the expected duration of cases disposed.
3. Expenditure on labor and other material inputs needed to keep the courts operational, as reflected in the variable cost per case disposed. We expected that a decrease in the variable cost per case disposed could be related to an increase in clearance rates and a decrease in the expected duration of a case disposed. For example, a decrease in the time allocated by each court employee to an average case filed would decrease the labor costs per case and make more time available for court personnel to deal with other cases pending.
4. The use of technology. Software can be used to manage information in the courts, (a) to maintain a database of jurisprudence; (b) to run case-tracking systems; and (c) for word processing. We expected to see a decrease in procedural times and an increase in clearance rates with the additional application of technology to case processing.
5. The amount of time dedicated by each judge to jurisdictional tasks. An increase in this variable would tend to decrease the expected duration

of cases, and increase clearance rates and the cost elasticity of supply of court services.

6. The amount of time dedicated by each judge to administrative tasks. An increase in this variable would tend to decrease clearance rates and increase the expected duration of cases disposed.
7. The managerial style of the judge. The more active and rational the managerial style of the judge, the higher we would expect court efficiency to be. Managerial activism can be measured by the determination of specific criteria for (a) managing cases, (b) the delegation of administrative tasks to court personnel, and (c) the use of technology to accelerate administrative tasks. Effective management would tend to decrease the expected times to disposition, increase clearance rates, and increase the elasticity of supply of court services. This variable also touches on the main aspects of the organizational factors affecting court efficiency. A court organization that avoids duplication of administrative tasks, specifies criteria for managing cases based on the complexity of the issue at hand, and applies technology to administrative matters would tend to increase clearance rates, reduce the expected duration of cases filed, and reduce the variable cost per case disposed.

The jurimetric study presented here aims at determining if our suppositions about the above relationships are valid, and if these variables are significant in the courts sampled. The indicators we used can be classified as procedural (procedural times and clearance rates), administrative (as a product of budget size and of the salaries of administrative personnel and judges), and organizational (number of employees, use of technology, and managerial techniques), and were selected for their capacity to illustrate the relative efficiency and efficacy of the court systems sampled here.

By identifying significant relationships between the input and output variables, we hope to help those responsible for designing judicial policies focus on the most effective means of improving court services.

### **General Findings and their Significance**

Below, we highlight the results of the survey, including how different variables affect duration and clearance rates, and the significance of the results. While many results tend to confirm our predictions, some debunk common ideas about how to structure a judicial reform program. It is important to remember that these results only look at court performance measured through clearance rates, procedural times, and cost elasticity of supply of court services.<sup>17</sup> While some factors do not boost case

processing times, they may improve other aspects of the judiciary, such as independence from political or financial influences.

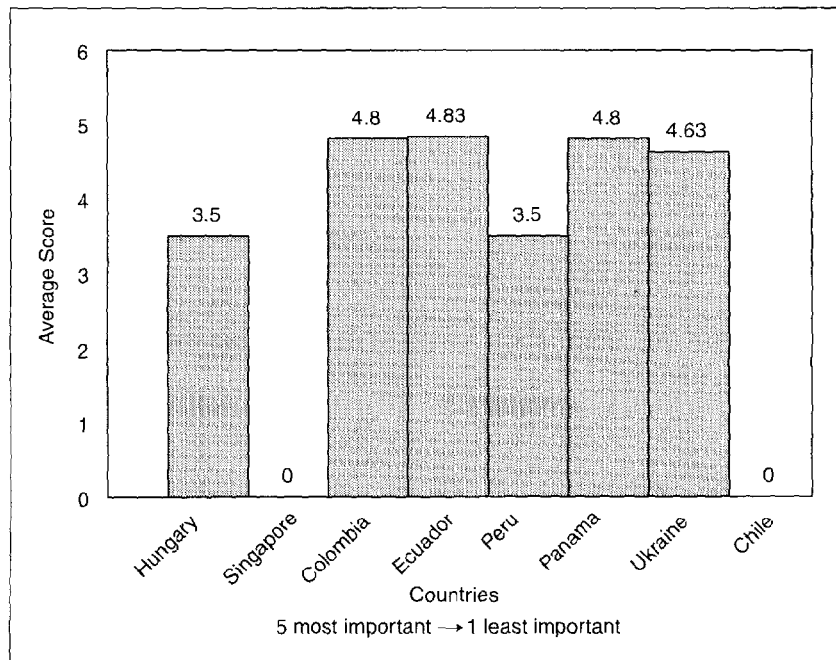
We have reserved other areas of court performance for future study.

### *Results of the Survey*

Survey questions were designed to analyze how judges allocate their working time, and what they perceive to be the main factors that affect efficiency in the judicial process. For example, questions were directed at their perceptions of how factors such as management and infrastructure affect the performance of the courts. A representative sample of judges was surveyed in the countries included in this study,<sup>18</sup> and it is interesting to compare their perceptions with the results of the empirical analysis. The survey results are described below.

Information technology is often perceived to be an important factor in efficient case processing. As a result, some of the questions relating to the effect of management are also related to the use of information technology. Information technology can play an important role in management and in improving transparency. The judges surveyed had the following views:

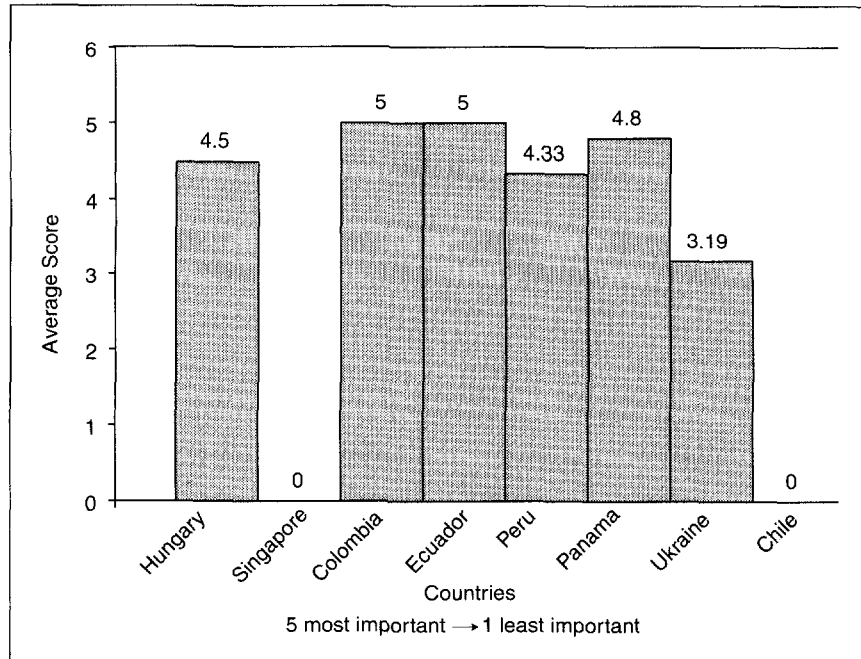
**Figure 1. Level of Importance of Information Technology in the Efficient and Fair Processing of Cases**





The importance of information technology in the efficient and fair processing of cases is assessed as high by the judges from Colombia, Ecuador, Panama, and Ukraine. While still moderately high, the level is slightly lower for the judges from Hungary and Peru. The judges generally perceive that information technology can facilitate efficient processing and at the same time enable good records to be maintained of cases disposed.<sup>19</sup>

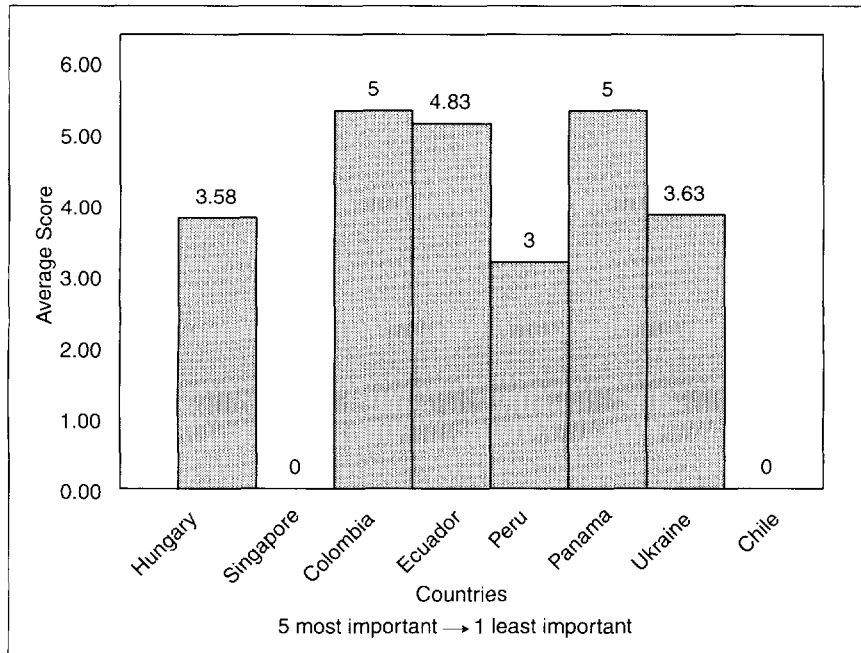
**Figure 2. Level of Importance of Management Skills of Judge in the Efficient and Fair Processing of Cases**



Of all the factors involved in the efficient and fair processing of a case, the management skills of the judge and court personnel ranked the highest overall. The Ukrainian judges did not agree with this analysis, but all other countries clearly displayed this interpretation.<sup>20</sup>

In addition to management issues, there are other elements that figure into the operation of the courts. These elements are not as easily modified as management issues. They include the number of judges, infrastructure, and the judicial budget, all of which the judges surveyed consider to be important.

**Figure 3. Level of Importance of Infrastructure in the Efficient and Fair Processing of Cases**



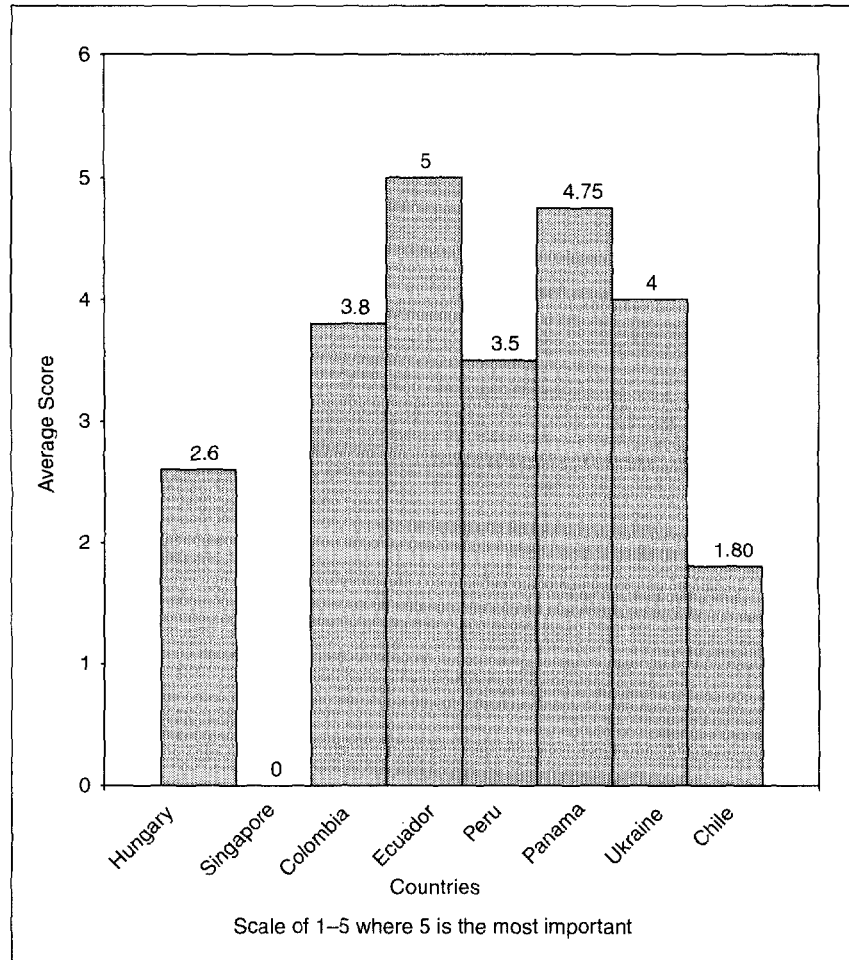
Infrastructure is identified as one of the most important factors in the fair and efficient processing of a case by the judges in Colombia, Ecuador, and Panama. For the other countries, this factor was of moderate importance. In some of these countries, infrastructure is a serious problem; the court houses are crowded, there are lines to use the elevators, and there is little space in which to keep files safe.

The number of judges is seen by most surveyed to have a moderate to high impact on procedural times. Although Chile and Hungary did not rank this factor as high as the other countries surveyed, they did rate it as a secondary factor.

Colombia, Ecuador, and Panama ranked budget allocation as the most important factor in the fair processing of a case. The remaining countries ranked it at a moderate level of importance.

Judges perceive that the judiciary needs an appropriate level of budget resources to function efficiently. Since many judges do not have direct responsibility or power over the budget, they are of the opinion that the criteria to allocate the budget should be reconsidered.

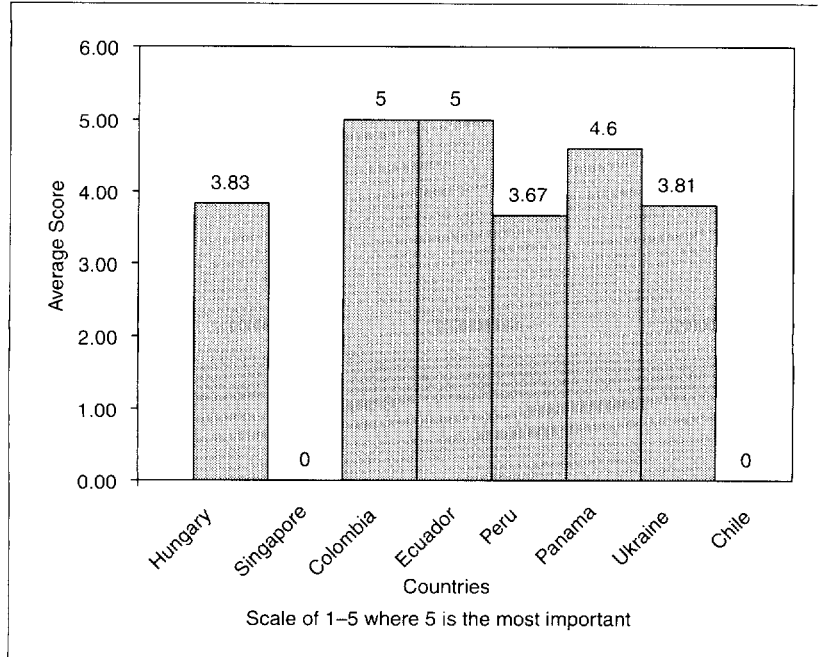
**Figure 4. How significant is the Number of Judges as a Cause of Time Being Too Long**



#### *Factors that Affect Procedural Time*

The time needed to dispose of a case is an indicator of efficiency, and varies from country to country. Countries with high clearance rates and small backlogs of pending cases have low average durations for case disposal. The factors that show up as affecting procedural time<sup>21</sup> confirm the results predicted by previous studies.<sup>22</sup> We used Spearman correlations to associate the expected duration of cases disposed with the following factors: (a) capital budgets and technology; (b) adjudicative time, administrative time, and managerial activism by judges; and (c) cost per case

**Figure 5. Level of Importance of Budget in the Efficient and Fair Processing of Cases**



and cost elasticity of supply of court services. A coefficient greater than zero shows a positive association between two factors, while a coefficient less than zero shows a negative association. The Cappelletti-Clark indicator was used to determine procedural time.

It is important to recognize that the Cappelletti-Clark index is just the ratio of ending inventory (pending cases) to withdrawn and adjudicated cases. It is not an annual input-output ratio, but rather a stock-flow ratio. Other studies show a clear parallel between this index and the actual procedural times per case.<sup>23</sup> When published data in a particular jurisdiction do not include direct measures of duration of litigation, it is necessary to use the Cappelletti-Clarke index as an indirect measure. This indicator has proven to approximate both the median and the mean actual duration, and thus represents a good "measure of central tendency." However, it should be stressed that this index is far from being a measure of the efficiency of the court, and it is not useful in assigning cases and staffing courts. The primary virtue of this indicator is its ease of computation.

Increasing times to disposition and illegal payoffs hamper citizens' access to justice, as measured in terms of time, money, and procedural

requirements.<sup>24</sup> The longer a case is pending in the courts, the greater the drain on judicial resources.<sup>25</sup> Longer times to disposition within commercial jurisdictions also add cost<sup>26</sup> and risk to business transactions, thereby reducing economic activity. Delays also increase attorney costs,<sup>27</sup> which may prohibit the litigant from pursuing a valid claim after the court of first instance. Given the many appeals available in Latin American courts, this form of delay causes hardship to both parties and puts excessive pressure on all levels of the courts.

The expected duration of a case affects not only the efficiency of the courts, but also the public's perception of the judicial system. In many of the countries sampled, the public has expressed concern over the inefficiency of the courts. One 1997 poll in Peru showed that more than 70 percent of the population does not trust the judiciary, making it less trusted than either the national police or the intelligence services.<sup>28</sup> It is not just the public that is concerned, however—it is also the judges responsible for the process. In most of the countries sampled, judges overwhelmingly agree that the time to resolve a case is too long.

The findings from this study show that capital budgets, technology, judicial activism, and cost per case can affect case processing time. The number of court staff, salaries, and the level of training appear not to have the same effect. Other studies support our findings that judicial activism is one of the main factors in reducing the time to resolve a case,<sup>29</sup> and that early and continuous control over caseload can reduce delay.<sup>30</sup>

It should be noted that these factors are under the control of the courts and do not depend on external elements.<sup>31</sup> Courts with long case processing times often lack active case management, so case management can be a good place to start.<sup>32</sup> Clearing the inactive cases from the files can also help reduce delays.<sup>33</sup> It has been shown that courts that have implemented delay-reduction programs have experienced a substantial reduction in case processing time.<sup>34</sup> These factors are just some of the issues that should be considered in evaluating the efficiency of the courts as related to the expected duration of a case.<sup>35</sup>

### *Capital Budgets and Technology*

Throughout the entire sample of countries, an increase in capital budget resources<sup>36</sup> has the effect of increasing the proportion of disposals per employee and judge, and thereby reducing the time to disposition. Similarly, countries that have larger capital budgets experience high clearance rates and lower expected case durations (Table 1). The caveat is that while an increase in capital resources affects time to disposition, adding general resources<sup>37</sup> to the budget does not (Table 2).

The common perception, however, is often that the budget as a whole should be increased. Although there is almost always the need to

improve infrastructure and invest in new technology, more often than not the increases in the budget usually are related to operational costs. Many countries in Latin America do not increase their capital budgets; instead, it is not uncommon that 95 percent of the budget is used for salaries. For example, in Argentina, where the expected duration for a commercial case is almost three years,<sup>38</sup> the majority of the court budget is used for salaries. In Chile, Colombia, Ecuador, Ukraine, and Peru, case durations increased during the period sampled. Although some of these countries experienced an increase in the general budget, this did not translate into a lower expected case duration. In contrast, Singapore significantly increased its capital budget in 1991 and subsequently experienced a 39 percent decrease in pending cases in 1993. In Panama, an increase in the capital budget was similarly met with an increase in court performance: the number of pending cases dropped by 70 percent in 1994 from the previous year, and the number of resolved cases increased by 39 percent in the same year.

Perceptions of what causes delay are also misleading. Judges relate delays to a need for more judges and more court personnel. Based on individual interviews, they also perceive the problem of delay to be caused by factors outside their control; for example, by litigants. In the United States, the lack of sufficient resources and too few judges are common complaints of judges in slow courts, even though the number of cases per judge is almost equal to that of courts that are considered to be fast.<sup>39</sup> The general perception that courts are understaffed is not shared by those in the fast courts.

The results of the study in fact show that the most important factors causing delay are those within the court's control. Analysis and discussion within the courts of the contrast between objective and subjective data are therefore important.

Judges also tend to perceive that infrastructure and other elements that benefit from capital budget increases can reduce the time to resolve a case—the judges sampled viewed good infrastructure as one of the factors that decrease procedural times, for example. Adequate infrastructure can also help to improve the morale of the judiciary and provide improved respect for the service that it provides. However, judges also agree that budget management is essential for efficiency in resolving a case. Very often, budgets are managed by the higher court, and in some cases by the chief judge instead of by a specialized professional. This is not true in every case—in some of the countries sampled, specialized administrative court personnel take charge within the court, and in other cases it is the Ministry of Justice that has the main responsibility for budget management.

Judges do consider information technology to be one of the most important elements capable of reducing the time needed to dispose of a

case. Courts that make most use of computers have a lower cost per case<sup>40</sup> and lower expected duration of cases disposed. The country that uses the least amount of information technology is Ecuador, where a case for the payment of debt takes an average of 800 days to be decided.<sup>41</sup> In some countries, judges make no use at all of computers. Emphasis should therefore be placed on providing the administrative office of the court with access to information technology, both for word processing as well as for caseload management. Training is also necessary to ensure the successful introduction of computer technology to the courts.

### *How Judges Spend their Time*

The more time that a judge dedicates to the administrative tasks of each case, the greater the procedural times observed (Table 1); and the less time spent on adjudicative duties, the lower the clearance rates and the higher the expected duration of cases disposed. As a result, it is important to review the administrative responsibilities of judges in different countries to see how time spent on administrative duties can be reduced. This has a direct effect on the time to resolve a case, which in turn can create obstacles related to access to the courts.

On average, judges in the countries sampled work approximately 11 hours a day,<sup>42</sup> including time spent in and out of the office. On average, they spend approximately 55 percent of their time on adjudicative work, preparing and writing judgments; approximately 30 percent of their time on nonadjudicative duties; and 14 percent on administrative work. The countries where the judges devote the most time to administrative tasks are Argentina and Colombia, and the countries where they devote the least amount of time to administrative tasks are Chile and France. There are several countries where judges dedicate less than 60 percent of their time to adjudicative responsibilities, including Argentina, Chile, Colombia, Ecuador, Peru, and Panama. The countries where judges devote the least amount of time to adjudicative duties are Argentina and Ecuador.

It is therefore important that some of the reforms be devoted to reducing the administrative burdens on judges, so that they may spend at least half of their time on the adjudicative duties for which they have trained. This assertion is supported by the facts that 78 percent of judges in developing countries consider administrative tasks and lack of resources to be their most important constraints, and that 57 percent of judges in developed countries argue that substantive legal constraints hamper their productivity and therefore harm the quality of justice. Increasing delays, backlogs, and the uncertainty associated with expected court outcomes have diminished the quality of justice in some of those countries sampled for this study.

In this negative context, managerial activism by the judge is an effective method of reducing the expected case duration and of increasing court performance. For example, judges often allow the litigants or their lawyers to control the process of the case—and often allege that lawyers create delays. Our jurimetric findings show that managerial activism results in an increase in the supply of court services and therefore a decrease in processing time. The country with the least activism is Argentina, while the country with the greatest judicial activism is Hungary. Other countries that seem to be quite active include Colombia, Singapore, and Ukraine, where the courts systematically arrange for conferences in order to encourage settlement among the parties to a dispute.

Active managerial style and more time dedicated to adjudicative issues are associated with a lower expected duration of cases disposed (showing Spearman correlation coefficients of  $-0.671$  and  $-0.410$ , respectively; Table 1). The time dedicated by judges to administrative tasks has a lower and less significant association with the expected duration of a case filed ( $0.224$ ). In addition, the judges surveyed consider that the managerial skills of their key personnel and information technology are among the most important tools to improve the time to dispose of a case. In Hungary and Peru, managerial skills, in fact, were cited as the most important factor by judges. This finding is consistent with other studies that have concluded that early court control, including setting firm trial dates for the case,<sup>43</sup> can help to reduce the time to resolve the case.<sup>44</sup> Court commitment is required to establish and meet these time goals.<sup>45</sup> For example, the United States has adopted time goals that specify that cases be resolved within two years.<sup>46</sup> Developing this form of active management style requires cultural change, training, and perhaps even a change in the skills mix of court personnel.

#### *Cost per Case, Budget Resources, and Cost Elasticity of Supply*

The cost per case is an important element that should be considered not only for efficiency purposes, but also for access-to-justice issues. It is clear that when the cost per case is high, obstacles are created for those individuals who may not be able to afford to bring an action before the court. In essence, rights may not be enforced because of cost considerations. People who file legitimate claims have a right to proper access, and court costs should not prevent them from enacting their rights. Reform projects may consider waiving court fees for low-income groups. For example, Peru and Ecuador have recently established court fees with exemptions for certain cases.<sup>47</sup>

In addition to the official court fees, the view of individuals and businesses alike is that informal incentives are required to motivate court personnel and judges to process cases that would otherwise remain pending



for years. This “transaction fee” does nothing to sustain a legitimate judicial system, but simply goes to the personal benefit of a judge or court official, contributing to corruption in the system and effectively obstructing justice.

Another pattern found among the courts sampled is that increases in procedural times cause the cost per case disposed to increase significantly. This is logical, since the longer the case remains in the system, the more resources it drains from the judiciary. In conjunction with the finding that an increase in the resources invested in capital budgets reduces the cost per case disposed, this suggests a negative association between the variable cost per case disposed and the resources invested in capital budgets. By investing in technology to increase productivity, the courts should logically achieve a positive impact on costs.

The cost elasticity of supply of court services (CELSUP) has a positive effect on procedural time. Although the cost elasticity measure takes into account the general budget resources, its positive effect is due to capital allocation. This is consistent with the results that capital budget can be applied to improve procedural time. Although the cost elasticity and capital budgets are interrelated, they are separated here to shed light on the net effects of further increases in spending. In addition, it is an indicator that can be measured by the courts and monitored over time to determine whether a certain amount of spending improves procedural time.

CELSUP measures the percentage increase in disposed cases resulting from a 1 percent change in budget resources. A CELSUP value larger than 1 indicates that an increase in the allocation of capital budget resources to the court would have a positive effect on the number of cases disposed by the judge, and one disproportionate to the investment made. This in turn would have a positive effect on procedural time. This study shows how the effectiveness of resources spent can be measured through court performance (i.e., cases disposed), and that CELSUP is a valuable budget-related variable that can be monitored annually in future studies of the courts.

#### *Insignificant Factors (Number of Staff, Salaries, Level of Training)*

As a result of the jurimetric analysis we find that the number of court personnel, salaries, and the level of training do not have a significant impact on the duration of case disposal. These results debunk the common perception and thrust of many reform programs. It is extremely common for courts to identify the lack of staff or judges as the primary cause of delay, and the judges sampled here in fact identified court size as second only to the litigants as the most significant cause of delay in resolving cases. In reality, the number of staff or judges does not always solve the problem

of delay, and in some countries increasing staff size has had arguably negative effect. In Chile, time to dispose of a case actually grew between 1979 and 1992, despite two laws that quadrupled the number of civil courts in Santiago.

Salary levels were also found to bear little relation to delay,<sup>48</sup> although it is important to note that adequate salaries are necessary not only to permit independence of the judiciary but also to address issues of corruption. Salaries also affect the quality of lawyers that are attracted to the judiciary. For example, in Chile, salaries of first-instance judges are 10 times the per capita income, a fact that may have some effect on the quality and reputation for honesty of the judges and staff.

Finally, despite the fact that the level of training was not found to have a significant effect on procedural times, its importance cannot be ignored. Training is essential to improve use of information technology, to elevate managerial activism, and to address substantive legal issues. For example, many of the judges indicated that the complexity of the cases they handle causes delays in resolution. Judicial training in complex legal issues would logically assist these judges to resolve cases more efficiently, and ensure that they are resolved based on sound legal reasoning. If for no other reason, training should be provided because it would benefit the quality of the decisions made. Raising the quality of judicial decisions is an important goal of the judicial service, and affects the public perception of the judiciary.

It is interesting to note that similar studies have found that court size, the number of judges, the caseload per judge, and the number of filings and dispositions per judge do not affect case processing time.<sup>49</sup> Although the number of filings per judge may seem intuitively to be an important factor of time, it has not been found to be significant. For example, in the United States, the fastest and slowest courts have similar numbers of cases per judge.<sup>50</sup> This finding is supported by the fact that the fast courts were actually found to improve their efficiency when filings increased. One factor that contributes to this improved efficiency is said to be the commitment of the court to provide an efficient service to the public.<sup>51</sup> Chile and Singapore have different number of filings per judge, but both judiciaries have high clearance rates.

### **Factors that Affect Clearance Rates**

#### *Significant Factors (Technology, Capital Budget, Cost Elasticity, Administrative Time)*

A regression analysis of the factors affecting clearance rates worldwide shows that these have experienced an increase due to: (a) the use of technology applied to case-tracking, jurisprudence, and decision-making;

(b) an increase in the cost elasticity of supply of court services, as explained above; and (c) the increase in the resources allocated to capital budgeting (Table 2). These factors showed a positive impact, recorded at a 5 percent significance level. At the same time, we found that the following factors negatively affect clearance rates: (a) increases in the proportion of a judge's time devoted to administrative tasks; and (b) adding administrative personnel. The above factors, positive and negative, together account for 56 percent of the changes in the clearance rates. Other studies have found that when there is a growth in caseloads, the clearance rates decrease.<sup>52</sup>

**Technology**, as discussed above, improves efficiency as measured in terms of clearance rates. The use of information technology by the courts for case tracking, jurisprudence, and writing decisions has a positive effect on the courts. Case tracking allows court personnel to follow the different stages of the case and determine whether procedural requirements have been met or are still pending. It is important to ensure that the case is progressing according to the timetable that the law has laid out to allow the implementation of quality control techniques. In all the developing countries in this sample, the majority of the judges surveyed indicated that the time limits included in the procedural guidelines were not enforced. Although it is not clear why the time limits are not enforced, the use of information technology can help courts follow the time limits and advise them when action is needed. In addition, since many judges complain that they do not have timely access to new laws and court decisions, technology that gives judges access to jurisprudence can assist in the decision-making process. This brings greater assurance that decisions will be consistent and predictable. Finally, decisions that are written with the use of information technology demand less time and fewer personnel.

**Cost elasticity** has a positive impact on clearance rates: the countries that have higher cost elasticity of supply of court services are also experiencing higher clearance rates. This is true for all countries in this sample (Graph 1).

**Capital budget** is an important element in determining clearance rates. As discussed above, budget that is allocated to capital expenditures has a positive effect in reducing the expected time to resolve a case. In addition, capital budget earmarked for the provision of information technology and improved facilities in the courts appears to permit improved working conditions, which in turn increases the clearance rates. One clear example is Singapore, where substantial investment in the 1990s paid off with clearance rates in the 90 percent range. Peru and Panama, which also made increases in the capital budget, experienced an improvement in the clearance rates.

In Panama, the total budget increased over the period 1990–1996, with the major increases taking place in 1992 and 1995 (27 percent and 25 percent). The capital budget grew by 108 percent in 1992, only to drop between 1992 and 1993, and rise again by 748 percent in 1995. The 1992 investment period coincides with an improvement in clearance rate in 1994. Panama is a country where the clearance rates are respectable, given the demand on the courts, but where the large number of pending cases may prevent the courts from improving efficiency. In a counter example, Ecuador, which increased only the general budget, did not benefit in the same way.

**Administrative time.** The time that judges spend on administrative work also tends to significantly affect clearance rates. As discussed earlier, the time spent on administrative tasks is time taken away from the adjudicative duties judges are appointed to perform. A large amount of time spent on administration is an issue mostly in developing countries in Latin America, where there is less of a separation of responsibilities between court personnel. Some judges actually feel that their administrative duties—such as signing checks—give them power, and they do not therefore want to delegate them. In contrast, in Hungary and Ukraine much of the administration is handled by the Ministry of Justice, thus alleviating the burden of the court. There is an argument that this diminishes the independence of the judiciary, but this factor may be less important than other elements affecting judicial independence.

*Insignificant Factors (Salaries, General Budget Resources, Number of Staff)*

Increases in the **salaries** of judicial personnel, judges included, have an insignificant effect on clearance rates (Table 2). The probability of a zero coefficient relating salaries and clearance rates is 34 percent, which at a 5 percent significant level is a high probability. For example, salaries for judges in Ukraine are low compared to the private sector; there are also complaints that salaries are not paid on time. Ecuador has increased the salaries of judges to the point where they are 15 times the per capita income, but clearance rates have not improved. Conversely, judges in the court sampled in France are not paid a salary, but their clearance rates are among the best. In the longer term, an increase in salaries should lead to better-qualified judges, and may also assist in reducing corruption. Many citizens in developing countries complain that judicial personnel expect additional payment for processing their cases efficiently. This obviously damages perceptions of the judiciary: increased salaries, coupled with other reforms, may have a positive impact on the judiciary. This was the case experienced in Peru.

Similarly, increases in **general budget resources** did not have an impact on the clearance rates in 144 cases sampled worldwide (Table 3). Specifically, percentage changes in the allocation of budget resources to the courts only explain 2 percent of the changes in the clearance rates. This table also shows that there is a 41 percent chance of there being no relationship at all between budget resources and clearance rates. This is clearly a likely event at a 5 percent significance level. This jurimetric analysis therefore questions the common assertion that adding resources to the courts is a first step in reducing caseloads and improving court performance. For example, in Ecuador the annual budget for the civil courts in Quito increased by 287 percent from 1990 to 1996, but the clearance rate actually decreased from 51 percent to 40 percent.<sup>53</sup> This strongly suggests that budget growth is not correlated with greater court efficiency.

**Adding staff** to the court, counter to many perceptions, also tends not to reduce clearance rates. Many judges believe that adding personnel would assist in the efficient processing of cases, but this is not necessarily true in practice. For example, in Colombia there has been a substantial increase in personnel since 1991, but the clearance rate has not increased enough to justify the additions. It may be more successful, in fact, to use the same number of personnel, but in a more efficient manner (Table 1). For example, in Chile the clearance rate dropped from 115 percent in 1990 to 52 percent in 1994, recovering to 106 percent in 1996. The drop was probably due to the steady rise in cases filed, and, specifically, to the sudden influx of cases filed in 1995. The courts showed that they were able to raise their productivity to deal with the greater number of cases.

In some of the other developing countries sampled, there is no clear division of responsibilities among the staff, who are in some cases therefore unable to adapt to changes in the court—especially those related to information technology. Because of this, some reforms recommend removing existing employees to make way for new personnel with the necessary skills and experience. Among the countries sampled, the number of personnel in the courts ranges from two to 17 persons. The number that each court employs may depend on the procedural nature of the legal system and its distinct requirements, however, making it difficult to make worthwhile comparisons across countries.

This analysis supports the results of previous studies that have determined that an increase in the number of administrative personnel and an increase in salaries have an insignificant correlation to changes in clearance rates. While judges in Argentina have an average of 15 employees in each court, judges of the High Court in Singapore share a registrar, deputy registrar and assistant registrars.<sup>54</sup> The Singapore court staff have both judicial and administrative responsibilities<sup>55</sup>—judges play no direct role in case management, which is very different from many systems in

Latin America. Furthermore, judges in Singapore and Argentina both earn generous salaries, but their clearance rates are quite different. Our regression results tend to confirm that the changes in salaries paid to judicial personnel have questionable short-term impact on the productivity of the courts. There may, however, be a positive impact on corruption and on the independence of the courts.

### Conclusion

It is clear from the quantitative analysis discussed in this paper that the countries that have concentrated on simply adding budget resources to their judiciary have done so with no more success than those that have concentrated on reforming the administrative structure of their courts—for example, by reducing the administrative burden within the judges' domain. Those countries that have made substantial capital investment in infrastructure and information technology, however, have seen more significant improvements in procedural times than those that have attempted to increase the number of judges. Chile, for example, passed two laws that quadrupled the number of civil courts over the period 1979–1992. Remarkably, case disposal time increased. Singapore, in contrast, invested heavily in its courts in 1991, and succeeded in improving its clearance rate from 91 percent in 1992 to 96 percent by 1997.

It is clear from the jurimetric results of this analysis that effective budget allocation can have a significant impact on court performance. The allocation of budget resources to infrastructure and information technology shows the greatest effect on clearance rates and the expected duration of cases. This is a critical finding in view of the fact that the countries with the worst court performance are those devoting the largest proportions of their budget to raising salaries and increasing staff sizes, rather than to capital investment.

The surveys of judges show that by eliminating duplication of administrative tasks through the use of procedural and operational manuals and by introducing an active case-management style, courts can enhance their clearance rates and at the same time reduce their procedural times. If salaries must be increased, the increases should be underpinned by the introduction of judicial reform indicators to track and ensure that efficiency also improves. The policy goal should be that higher remuneration bring better court performance: this can be assessed by stating the mission strategy for and specifying the required performance of each court employee, and by establishing quality control standards to monitor that performance.

It must be stressed that the recommendations made in this paper do not depend on the legal framework within which they are applied, and

that they can be implemented even by countries that lack common-law or civil-law systems. This study focuses only on those common factors that have shown a positive impact on international court performance—factors such as effective leadership, judicial accountability for case processing, and independence of the courts. Variables such as willingness to reform and the political balance between the three different branches of government can obviously propel or obstruct reforms; the jurimetric analysis proposed here merely provides a framework within which to assess the measures that can improve efficiency and that can be used to develop public policy in this area.

By designing reforms that include the factors described in this study, countries should be able to achieve positive short-term results. Longer-term success requires that these elements be part of a broader program, however—each of them may have little impact if implemented alone. For example, salary increases based on court performance indicators will return positive results only when accompanied by training programs addressing case-management techniques and when supported by changes in court administration.

Finally, the approach outlined in this paper describes a mechanism to monitor court progress by which data is used as a powerful tool to fine-tune reforms. This mechanism enables courts to assess whether their performance has improved or declined, and even to determine why. If they are to use this approach, however, those developing countries that do not already have reliable information must first build the database of quantitative and qualitative information that will enable this type of monitoring. This may in some cases require that these countries modernize their office of statistics.

Enhanced efficiency and access to the courts for those who need it and cannot find substitutes to resolve their conflicts are the goals of any judicial reform. Achieving greater efficiency in the supply of court services is compatible with the goal of providing greater public use of or access to the judiciary. In fact, when procedural times decrease, the cost of access decreases and clearance rates improve. Further studies should advance an explanation of why the court system should concentrate its resources on a more limited range of case types, shifting other cases to alternative dispute-resolution mechanisms provided by the private sector and endorsed by the government. One of the objectives of making comparisons of court performance indicators is to assess what service is being provided, at what cost, and how this service can be improved with the resources available.

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# Annex

**Table 1. Spearman Correlations Relating the Expected Duration of Cases to Key Variables**

*Matrix of Spearman Correlation Coefficients*

	EXPDUR
CAPBUDGE	
EXPDUR	1.000
ADMTDAY	0.224
JURTIME	-0.410
MANAGQ5	-0.671
TECHNOLOGY	-0.949
Cost Per Case	0.79
Number of Observations:	75

The Spearman correlation coefficients shown in Table 1, associating several factors to the expected duration of cases disposed, confirm the results that previous studies had led us to expect (Buscaglia and Dakolias, 1996):

- higher use of technology in the courts is associated with a lower expected duration of cases disposed, as seen by a negative coefficient of -0.949;
- a more activist managerial style and more time dedicated to adjudicative issues are associated with lower expected duration of cases disposed (-0.671 and -0.410, respectively);
- the time dedicated by judges to administrative tasks has a low and insignificant association with the expected duration of a case filed (0.224);
- the higher cost per case disposed is associated with a higher expected duration of cases disposed, with a positive and significant coefficient of 0.79.



**Table 2. Non-Linear Regression Results Explaining Clearance Rates**

*Explained Variable: Clearance Rate*

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SQUARED MULTIPLE R: 0.56

VARIABLE	COEFFICIENT	T	P(2 Tail)
CONSTANT	97.18	0.00	...
CAPBUDGE	9.01	2.30	0.00 ..
ADM. TIME per DAY	-0.46	-0.07	0.06 ..
TECHNOLOGY	13.90	1.12	0.00 ..
CELSUP	0.73	0.43	0.01
SALARY	-0.02	0.12	0.34
ADMIN. PERSO.	-0.45	0.21	

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A regression analysis of the factors affecting clearance rates worldwide shows that the following variables have a significant positive impact (at a 5 percent significance level) on the productivity of the courts:

- an increase in the resources devoted to capital spending;
- increased use of technology;
- greater cost elasticity of supply of court services.

In contrast, increasing the proportion of their time that judges devote to administrative tasks and increasing the number of administrative personnel per court tend to have a negative effect on clearance rates. Finally, our regression results tend to confirm that the salary levels of judicial personnel have no impact on court productivity.

**Table 3. Regression Results: Clearance Rates Against Budget Resources**

*144 Cases*

*Explained Variable: Clearance Rate*

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MULTIPLE R: 0.139 S

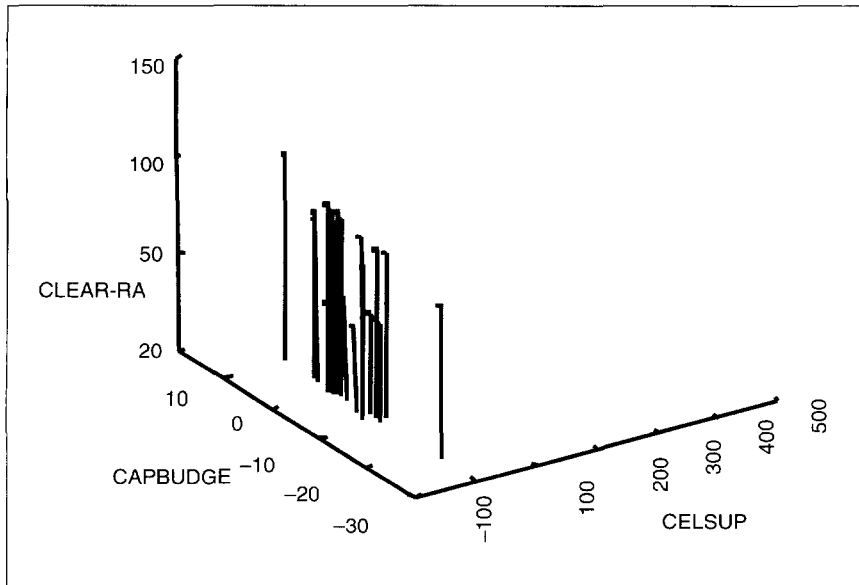
SQUARED MULTIPLE R: 0.019

VARIABLE	COEFFICIENT	STD ERROR	T	P(2 TAIL)
CONSTANT	0.682	0.057	11.975	0.000
BUDGET	-0.006	0.007	-0.829	0.413

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Table 3 shows the regression results of relating the annual percentage increases in budget resources to the clearance rates across all countries sampled. Increases in general budget resources, unlike capital budget resources, have no significant impact on clearance rates. The coefficient equal to  $-0.006$  is not significant at a 5 percent level (in this case, the probability of a coefficient equal to zero for the population is 41.35 percent).

**Graph 1. Clearance Rates Plotted Against the Cost Elasticity of Supply of Court Services**



Graph 1 shows the effects of increasing budget resources (CAPBUDGE) on the supply of court services (CLEAR-RA). The graphical pattern seen here indicates that those countries with higher cost elasticities of supply of court services also have higher clearance rates. This is true for all countries sampled in this study.

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# Judge Questionnaire

PLEASE ANSWER QUESTIONS BY CIRCLING THE APPROPRIATE NUMBER.

1. Time Needed to Dispose of a Case?

Please estimate the total number of hours

a. What was the approximate overall average worktime required by the judge to dispose of a case: \_\_\_\_\_ TOTAL HOURS (judicial time spent on and off the bench that can be directly related to the processing of the specific case discussed here)

b. (i) What was the approximate worktime in this case dedicated to nonadjudicative duties \_\_\_\_\_ TOTAL HOURS

(ii) What was the approximate worktime in this case dedicated to administrative work (other than case management activities):  
\_\_\_\_\_ TOTAL HOURS

c. What was the approximate overall worktime spent by supporting personnel (main personnel in case processing) \_\_\_\_\_ TOTAL HOURS

2. a. What Are the Six or Seven Main Steps in the Procedural Process?

(e.g., preliminary scheduling, discovery management, dispositive motions, other motions, conferences, decision, and others. If these steps are the most important, please use them because it will help our comparison)

b. Please Link Each Activity with the Time Demanded by the Officer in Charge.

This will serve to relate the type of court action with the time to dispose of a case

	Each Step	Judge (Hours)	Other Personnel (Hours)
a.	_____	_____	_____
b.	_____	_____	_____

- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_
- f. \_\_\_\_\_
- g. \_\_\_\_\_  
(add any other type of activity considered to be of interest)

3. When you first become involved with a case, what are the main obstacles that create additional work?

	High	Medium	Low	No Opinion
a. Overall complexity	_____	_____	_____	_____
b. Difficulty of discovery (material to support case)	_____	_____	_____	_____
c. Inconsistency of laws	_____	_____	_____	_____
d. Difficulty in relations between parties and/or attorneys	_____	_____	_____	_____

4. a. Which one of the following management procedures would you rank as most important to you, on a scale of 1-5 (5 is the most important)? [This question relates to the factors that improve the time to dispose of case, regardless of whether the judge has them or not]

- i. efficient use of resources [this includes the use of computer technology needed to monitor cases, infrastructure, necessary qualification of staff, management skills of principal personnel, special assistance to individual courts in management, budgetary problems, and planning]

1      2      3      4      5      (circle one)

- ii. expeditious case disposition [this includes the judge's ability to make certain requirements during the processing of the case; for example, limiting the number of interrogatories, time

allowed for discovery, and assigning penalties for frivolous motions]

1      2      3      4      5      (circle one)

iii. firm and certain procedural times for each step as established by law

1      2      3      4      5      (circle one)

- b. What is the level of importance that the following administrative factors have for the efficient and fair processing of cases: (scale of 1–5, where 5 is the most important)

Information technology

1      2      3      4      5      (circle one)

Technical qualifications of personnel technology

1      2      3      4      5

Budget technology

1      2      3      4      5

Infrastructure technology

1      2      3      4      5

Management skills of judge and personnel technology

1      2      3      4      5

5. a. Some cases require intensive judicial management. Other cases may be largely unmanaged, with the pace and course of litigation left to the lawyers and the court involved only when requested. How would you characterize the level of judicial management in your typical case? [Does the judge determine the order in which he/she reviews the casefile? e.g., first come, first served; social urgency; or on the basis of complexity?]

Intensive or high	1
Moderate	2
Low or minimal	3
None	4
I'm not sure	5

- b. In hindsight, do you feel the level of judicial management in your typical case should be more or less than it actually is (e.g., should you or your office take more time to assist the parties to settle before the case is disposed)?

Should have been more intensive	1
Level was correct	2
Should have been less intensive	3
No opinion	4

6. Do you assign cases to a specific case management category or "special track"?

a. Yes                      b. No

7. Has this specific "track" assignment influenced how you manage a case?

- a. Yes, made it more time intensive  
 b. Yes, made it less time intensive  
 c. Yes, different but not more or less time intensive  
 d. No impact on management  
 e. No opinion

8. Is any kind of court related alternative dispute resolution method used in the cases? (Circle One)

- a. Yes. If yes, indicate which mechanisms were used (e.g., arbitration, mediation, early neutral evaluation, settlement conference with judicial officer, or certification that lawyers discussed settlement)  
 b. No. If no, indicate what kind of ADR, in your opinion, should be used, if any?

9. Do you apply any other mechanisms that are intended to increase the likelihood of settlement?

Yes (please explain)

No

10. How would you characterize the following activities in your court as they relate to improving the time needed to dispose of a case?

a. Initial scheduling set by court

- i. Not applicable
- ii. Yes, but it was not followed
- iii. Yes, and it was generally followed

b. Additional settlement conferences held by the court

- i. Yes
- ii. No

c. Settlement discussion(s) held in the presence of:

- i. Not applicable
- ii. Yes, in the presence of the judge
- iii. Yes, conferences held with a judicial officer in the court, but not in the presence of the judge

d. Were litigants present at settlement conference?

- 1) No      2) Sometimes      3) Always

e. Were specific limits (time, scope, or quantity) placed on the period of discovery?

- 1) No      2) Yes, but not adhered to      3) Yes, and were adhered to





c. nature or complexity of the case

1      2      3      4      5

d. litigants or their lawyers delay case intentionally (e.g., frivolous motions)

1      2      3      4      5

e. lack of technical qualifications in the court personnel

1      2      3      4      5

f. excess of administrative responsibilities by the judge

1      2      3      4      5

g. other (please explain)

1      2      3      4      5

13. a. Do you have any information technology in your court?

Yes                      No      (circle one)

b. If yes, are there any computer-based monitoring/case management systems applied in your court?

Yes                      No      (circle one)

c. If yes, briefly describe the type of computer system used and whether it is useful to improve the management of the cases (e.g., user friendly; it is used by court personnel and/or the judge)

14. Would you classify the court administrative system prevailing in most first-instance courts within your legal jurisdiction as: (e.g., where Supreme Court is responsible for all administration, budget and supplies)

a. Too centralized

b. Moderately centralized

- c. Moderately decentralized
  - d. Too decentralized
15. a. Have you written proposals or participated in conferences to discuss the improvement of case/court management techniques with other judges within your jurisdiction? (circle one)
- i. Many times
  - ii. Seldom
  - iii. Never
- b. If the answer is many times or seldom, were any of these proposals implemented, and if so, what was the result?
16. Other than the things we have been talking about, have there been efforts in your court to improve court or case management in order to speed up the resolution of cases? (e.g., have you applied case classification techniques or case scheduling and monitoring?)

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## Endnotes

1. This kind of analysis includes statistics applied to the description and analysis of a legal system.
2. The clearance rate is the ratio of cases disposed to cases filed.
3. One study has defined efficiency as a product of timeliness and quality. "Efficiency, Timeliness, and Quality: A New Perspective from Nine State Criminal Trial Courts." Brian Ostrom and Roger Hanson, with John Goerdt and Donald Rebovich. National Center for State Courts, 1998.
4. Germany leads in this area, ahead of Japan, the United States, and New Zealand. The country's population has increased by 12.4 percent during this period. "Examining Work of State Courts," 1996, pp.15 and 18.
5. Transnational legal problems have also grown tremendously in number and complexity. *Social Role of the Legal Profession*, p.119.
6. *Reexamining Pace*, p.6
7. The greffiers, civil servants who are appointed after undergoing training and passing an examination, are responsible for recording judgments, recording statements made by the parties, and preserving court records. The Office of the Greffier has additional responsibilities, which include maintaining the local registries of companies.
8. "Legal System of Panama," Saint Louis University Law Journal, Summer 1996, Vol. 40, p. 1393.
9. A court administrator was appointed recently who has close ties to the military, raising some questions about the reforms. FBIS, June 1, 1998, "Editorial Views New Meddling in Judicial Branch."
10. Provisional judges and prosecutors were commonly used in the past. FBIS, December 11, 1997, Judicial Branch Submissive to Executive.

11. Each lawyer, the witness, and the judge and court officials have a computer or television monitor. The courtroom is also outfitted with a large projection television. Documents can be shown on the monitors, along with video material. Lawyers can also use the computer facilities for elaborate presentations if they wish. The fact that a witness is overseas or not available cannot be used to delay a trial.

12. *Judicial Overview of Central and Eastern Europe*, p.8

13. In some cases, choices had to be made as to which courts handle larger types of commercial disputes. This was the case in Germany and Colombia.

14. Singapore was the only exception.

15. This approach has been used in previous studies of court services (Buscaglia and Dakolias, 1995, and Buscaglia and Ulen, 1996). In these previous studies, applied to Argentina, Ecuador, and Venezuela, key variables were found to determine the output and productivity of individual courts sampled for that purpose as primary data sources.

16. Elasticity of supply indicates how the productivity of the courts increases when the budget resources are increased.

17. Cost elasticity of supply is the same as elasticity of supply.

18. Representing 5 to 10 percent of the relevant universe in each country sampled.

19. Singapore and Chile did not answer this question.

20. Singapore did not answer this question. Chile was the pilot country for this survey, and as it was felt that the situation in that country was artificially enhanced by this fact, answers to this question from Chile are not included here.

21. Expected duration.

22. Buscaglia and Dakolias, 1996.

23. Carlos Gregorio, 1994.

24. Buscaglia and Dakolias, p.27.

25. "National Center for State Courts," N.2 1993.

26. Opportunity costs of the time devoted by the user to litigation and the cost of not being able to use the personnel and capital because spending time and resources dealing with litigation.

27. Direct costs for the user are lawyer fees. Court direct costs are computed by the capital cost devoted to each case, and increase when the indirect costs for the court also increase. This is because as the time per case increases, the opportunity costs of not dealing with other pending cases also increase.

28. "Peru: Poll Shows People Do Not Trust Most Government Institutions," FBIS, Sept. 3, 1997, available in FBIS, Doc. No. FBIS-LAT-97-246.

29. "Reexamining Pace," p. 35.

30. "Examining Court Delay," p. 4.

31. "Examining Court Delay," p. 39.

32. "Reexamining Pace," p. 40.

33. "Examining Court Delay," p. 14.

34. "Examining Court Delay," p. 44.

35. Other factors that could be included and which have been found in other studies to be significantly related to case processing time are pending caseloads per judge and the backlog index. "Reexamining Pace," p. 49.

36. This is defined as real spending devoted to capital court resources, such as chairs, buildings, computers, etc.

37. General resources is all spending devoted to personnel and capital, and includes technology, such as new forms or ways to organize personnel and capital in order to resolve cases.

38. Buscaglia and Dakolias, p. 16, technical note 350.

39. "Examining Court Delay," p. 41.

40. Courts that use more information technology are more productive in terms of resolving cases.

41. "Procedural Time Study, Projusticia," Ecuador, 1997.

42. This includes time spent in and out of the office.

43. "Reexamining Pace," p. 48.

44. "Examining Court Delay," pp. 40-41.

45. "Examining Court Delay," pp. 4, 35, 39

46. "Examining Court Delay," p. 39. While not all the courts are meeting this goal, it does provide a standard for which to aim. Courts have averaged a 22 percent success rate in meeting the two-year standard. "Reexamining Pace," p. 36.

47. In Ecuador, however, the fee structure has not yet been implemented.

48. This was even in the case of a two-year backlog.

49. "Reexamining Pace," p. 51.

50. "Examining Court Delay," p. 28.

51. "Examining Court Delay," p. 46.

52. "Examining Court Delay," p. 23. In addition, studies have found that a decrease in the number of pending cases also has a positive effect on the clearance rates.

53. Although the increase in judicial-sector spending appears to have been substantial, most of this increase simply reflects the rising rate of inflation during the 1970s and 1980s. If the annual budget for the judicial sector is computed in 1975 sucres, expenditures increased modestly over the same period (1973-1989), from 121.4 million sucres to 197.5 million sucres. In addition, most of the increase in the judicial-sector budget occurred during the period from 1973 to 1979, when the annual rate of increase was approximately 7.6 percent. In contrast, from 1979 to 1989, judicial-sector spending increased at an annual rate of less than 0.5 percent.

54. The 20 judges that make up the High Court (12 judges and eight commissioners) share personnel for administrative purposes.

55. Supreme Court Singapore, at 17.









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