

## Case Weighting as a Common Yardstick: A Comparative Review of Current Uses and Future Directions

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### Abstract

In recent years, court systems in the U.S. and abroad have begun to adopt objective, empirically based methods for determining the need for court resources. This methodology, called workload assessment or weighted caseload, provides an empirical basis to measure judicial work and assess how many judges are needed to handle the work in a particular jurisdiction, how judicial resources can be equitably allocated, and how much work any particular judge should handle. This article provides a general introduction to the basic elements and applications of the methodology in both nascent and transitional democracies, assesses the pros and cons of alternative methods (Delphi vs. time study) for developing case weighting systems, and profiles the usage of case weighting systems by three court systems (Bosnia and Herzegovina, the Republic of Serbia, and Kosovo). The article concludes with a set of practical findings regarding the development and implementation of a case weighting system.

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**Key words**

Workload assessment; case weighting systems; weighted caseload; court management

**Resumen**

En los últimos años, los sistemas judiciales de EEUU han comenzado a adoptar métodos objetivos y empíricos para determinar la necesidad de recursos judiciales. Esta metodología, llamada evaluación de la carga de trabajo o carga de trabajo ponderada, proporciona una base empírica para medir el trabajo judicial y valorar cuántos jueces hacen falta en una jurisdicción concreta, cómo se pueden administrar los recursos de forma equitativa y cuánto trabajo debería encomendarse a cada juez. Este artículo proporciona una introducción a los elementos y aplicaciones básicos de la metodología tanto en democracias nacientes como en aquellas transicionales, sopesa los pro y los contra que presentan métodos alternativos y realiza un perfil del uso de sistemas de ponderación del trabajo en tres sistemas judiciales (Bosnia y Herzegovina, la República de Serbia y Kosovo). El artículo concluye con un cúmulo de hallazgos prácticos referidos al desarrollo e implementación de un sistema de ponderación del trabajo.

**Palabras clave**

Valoración de la carga de trabajo; sistemas de ponderación del trabajo; carga de trabajo ponderada; gestión judicial

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## 1. Introduction

*Throughout the realm there shall be the same yard of the same size and it should be of iron.*

*Assize of Measures, 1196*

As early as the 10th century, governing bodies were seeking to establish standardized units of measurement. For example, the Saxon king Edgar kept a “yardstick” as the standard for measurement of a yard in southern Saxon lands. This represents clear progress from the earlier reliance on the distance from the tip of the King’s nose to the end of his outstretched thumb (National Physical Laboratory n.d.). The establishment of standards for measurement is also a key component of the Magna Carta (1215). Beyond famously declaring the sovereign to be subject to the rule of law and documenting the basic liberties of free men, the Magna Carta declares that “[t]here is to be one measure of wine throughout our kingdom, and one measure of ale (...) and let weights be dealt with as with measures” (Magna Carta, Clause 35). In these instances the development and enforcement of standardized units provide a framework for establishing commercial order and public confidence in trade and banking (Rosenthal 1964). More generally, standardized units provide a common yardstick for comparison and allow for “the judging of human performance and worth” (Bingen and Busch 2006).

Attention to measurement is increasingly the sine qua non of modern court administration. High-performing courts collect and monitor key performance indicators (e.g., time to disposition, age of active pending caseload, backlog) in an effort to assess and improve performance (Ostrom and Hanson 2010). When performance measures fall short of established standards, high-performing courts respond with course corrections. All too often, however, courts in the U.S. and across the globe fail to engage in this type of measurement-driven continuous improvement process. These courts fail to track key indicators and rely on anecdotal accounts or “nose-to-thumb” measures to make vital decisions. For example, in response to rising per-judge caseloads in the U.S. Court of Appeals, Judge Stephen Reinhardt proclaimed “you do not need long-range studies, extensive surveys, caseload measurement, or other bureaucratic techniques to learn the answer to our problem. There are simply far too few of us to do the job properly.” (52) Based on his intuitive assessment, Judge Reinhardt (1993) recommended that the number of U.S. Court of Appeals judges be doubled from 160 to 320, affording appellate judges more time to pay attention to individual cases and ultimately improve the quality of judicial work. Judge Reinhardt is not alone in adopting a normative, non-empirical approach to addressing the important question of how many judges are needed to efficiently and effectively handle caseloads.

Courts, in the U.S. and abroad have historically lacked an objective and empirically based method for determining the need for court resources. Budget negotiations with funding authorities have been based primarily on personal relationships and anecdotal accounts of the need for judicial resources. In most jurisdictions, the byproduct of this strategy was an under-resourced judiciary, along with the inequitable distribution of judicial resources among jurisdictions. These conditions compromise access to justice and the quality of case resolution for certain segments of the population.

Over the past 30 years, court systems have begun to move away from budgeting requests based on ‘finger in the air’ estimates and political patronage and towards a rigorous, empirically-based methodology—called workload assessment, weighted caseload analysis, or case weighting—to assess the need for judicial resources. The case weighting methodology provides an empirical basis to measure judicial work and assess how many judges needed to handle the work in a particular jurisdiction,

how judicial resources can be equitably allocated, and how much work any particular judge should handle. A well-constructed weighted caseload system provides a common yardstick to help ensure that decisions about the number and allocation of judicial resources are fair and transparent.

This article comprises four sections. The first section provides a general introduction to the basic elements and applications of the weighted caseload methodology. The next section provides an overview of two alternative methods for developing case weighting systems (Delphi and time study). It introduces and describes each of the methods, outlines the advantages and disadvantages of each method, and summarizes real-world applications in the U.S. and other nations. The third section profiles the usage of case weighting systems by three court systems in the Balkans: Bosnia and Herzegovina, the Republic of Serbia, and Kosovo. This section also explores the feasibility of developing and implementing a case weighting system using either a Delphi approach or a time study in each court system. The final section discusses three findings and associated practical recommendations for the development of case weighting systems in nascent or transitional democracies drawing on the real-world experience of the three Balkan countries. These findings are based on the review of the two alternative methods for developing case weights, interviews conducted with key stakeholders in the three court systems, and the authors' experiences with conducting weighted caseload studies in the U.S. and abroad.

## 2. Elements of Weighted Caseload

For courts across the globe, an objective and standardized measure of judicial officer workload is an essential management tool. In the United States and Europe (e.g., Austria, Germany, the Netherlands, Norway, Spain, Switzerland), case weighting systems have long been recognized as a best practice for measuring court workload. In recent years, jurisdictions undertaking major judicial system reform efforts (e.g., Bulgaria, Kosovo,<sup>1</sup> Mongolia, the Republic of Serbia, the West Bank) have also begun to adopt case weighting systems to aid in analyzing court workload. Case weighting systems have a wide variety of practical applications. At a system-wide level, case weighting systems can be used to determine the total complement of judicial officers required to efficiently and effectively handle the workload of the courts, to determine the optimal allocation of judicial officers within and across geographic jurisdictions and court divisions, to aid in the process of redrawing judicial boundaries, and to assess the resources required to clear court backlogs. Case weighting systems can also be applied to the work of individual judges to evaluate judicial productivity and performance.

Case weighting systems are founded upon the basic premise that court cases vary in complexity, meaning that different types of cases require different amounts of judicial time and attention. Caseload composition, or the relative proportions of different types of cases making up a court's total caseload, can therefore have a profound impact on court workload. For example, courts in some border jurisdictions tend to have a higher proportion of human and drug trafficking cases than courts located in a nation's interior. These complex and time-consuming cases create additional work for judicial officers in border courts. Resource models that are based upon population or raw, unweighted case counts ignore this critical aspect of the work of the courts. By weighting cases to account for the differences in judicial workload associated with each case type, a case weighting system provides an accurate assessment of workload that accommodates differences in caseload composition, both over time and across jurisdictions.

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<sup>1</sup> This designation is without prejudice to positions on status and is in line with United Nations Security Council Resolution 1244 and the International Court of Justice Opinion on the Kosovo Declaration of Independence.

A case weighting system calculates judicial need based on total judicial workload. The case weighting formula consists of three critical elements:

- **Case counts**, or the number of cases of each type handled over the course of one year. Case counts may be expressed either as filings (new cases initiated) or as dispositions (cases resolved). Case counts are obtained from the court's computerized case management system or from annual statistical reports. Accurate and reliable case counts are essential to the proper functioning of the case weighting system. Cases must be counted in a uniform manner across all jurisdictions. In criminal cases, for example, multiple charges may be filed against a single defendant arising from a single incident. If some jurisdictions count all charges against an individual defendant as a single case while other jurisdictions count each charge as a separate case, calculations of court workload will be artificially inflated in those jurisdictions counting each charge as a separate case.
- **Case weights**, which represent the average amount of time a judicial officer spends to handle cases of each type over the life of the case. Case weights are typically expressed in terms of minutes or hours, but may also be expressed in terms of relative values or units. Each weight includes all time required for a judge to resolve the case, from pre-filing activity (e.g., reviewing a search warrant or an arrest warrant) to the review of case files and preparation for hearings through the compilation of judgments and all post-disposition activity (e.g., post-trial motions and probation violations). Both on-bench work (e.g., hearings and trials) and off-bench work (e.g., reviewing case files, writing opinions) are included in the case weights. The case weights may be constructed upon the basis of expert opinion or a time study.
- The **year value**, or the amount of time each judicial officer has available for case-related work in one year. Like the case weights, the year value is expressed in terms of minutes or hours. The year value includes only the time judges have available to work directly on individual cases; it excludes time spent on work not directly related to the resolution of a particular case, such as committee meetings, court management, staff supervision, and travel. Different year values may be used to accommodate variations in the amount of non-case-related work performed by different types of judges. For example, in rural areas where judges spend a large amount of time traveling from court to court, a smaller year value for case-related work may be applied. Judges with special administrative responsibilities, such as chief judges, may also be assigned smaller year values for case-related work. Setting the year value is a policy decision that may be informed by empirical data gathered from a time study as well as expert opinion.

The total annual judicial workload is calculated by multiplying the annual case count for each case type by the corresponding case weight, then summing the workload across all case types. The workload is then divided by the year value to determine the total number of full-time equivalent judges needed to handle the workload. This calculation may be performed at the level of a single judge, a court division, a court, a jurisdiction, or the entire judicial system.

In the United States, case weighting is typically used to determine the total complement of judges required to handle a judicial system's workload, to support funding requests for the judiciary, to allocate judicial officers among jurisdictions within a state, and to inform the process of judicial redistricting. More than thirty U.S. states currently use weighted caseload to calculate judicial need at the statewide level. When current judicial staffing levels are inadequate to handle the workload, case weighting studies provide justification for requests to the legislature to create additional judgeships. In 2006, for example, the California legislature created 50 new judicial positions in response to a case weighting study; similarly,

the Wisconsin legislature approved eight new judicial positions between 2008 and 2010 to address unmet need identified through a case weighting study. In states where caseloads and judicial workload are declining, case weighting systems can be used to manage the process of reducing the size of the judiciary and to ensure that reductions in judicial positions are appropriately targeted (Kleiman *et al.* 2013). In Michigan, for example, annual filings in the district and municipal courts decreased by approximately 21 percent from 2002 through 2011, and annual circuit and probate court filings fell by more than 17 percent over the same period. In 2011, the Michigan State Court Administrative Office recommended a 7.7 percent reduction in the state's total complement of trial court judges. The recommendation was based on a case weighting study completed in 2010; this empirical support helped to secure the endorsement of the Michigan Supreme Court and three associations of Michigan trial judges. The legislature ultimately eliminated 36 judicial positions through attrition, resulting in a final cost savings of approximately \$6.3 million annually (Kleiman *et al.* 2013).

In addition to determining the overall complement of judicial officers, case weighting systems are helpful in allocating judges to individual courts or jurisdictions. North Carolina, for example, uses case weighting systems to distribute Superior Court judges as well as prosecutors among the state's various judicial and prosecutorial districts. When the state legislature authorizes funding for new positions, the North Carolina Administrative Office of the Courts uses case weighting to allocate the additional positions to those districts with the greatest need for additional resources.

More recently, states have turned to case weighting to assist in the process of judicial redistricting. In 2011, Virginia legislative leaders requested that the Supreme Court of Virginia formulate a plan to realign the boundaries of the state's judicial circuits and districts to increase efficiency. In response, the Supreme Court commissioned a case weighting study that revealed that combining judicial circuits and districts would not reduce the state's total need for judges (Ostrom *et al.* 2013). In contrast, a 2014 case weighting study commissioned by the West Virginia legislature revealed that sharing magistrates across county lines would substantially reduce the total need for magistrates, although the study recommended against such sharing of resources in order to preserve access to justice in rural areas (Lee *et al.* 2014).

Case weighting systems can also be used to determine the judicial resources needed to eliminate a backlog of cases. Calculating the amount of work associated with the resolution of excess pending cases provides guidance on the number of temporary resources (e.g., senior status or retired judges) needed to reduce or eliminate backlog. A recent case weighting system developed for First Instance and Conciliation Courts in the West Bank includes backlog reduction as one of its intended uses (Kleiman and Ostrom 2013).

Finally, case weighting systems have been used at the individual judge level to measure productivity and evaluate judicial performance. In 2000, the Spanish Judicial Council approved a case weighting system (*módulos de dedicación*) to measure the judicial productivity of individual judges. The system was created to establish performance-based remuneration and to provide salary bonuses to judges who exceed productivity standards (Contini *et al.* 2014). In Bulgaria, a case weighting system is being developed to allow for the comparison of the workload of individual judges to an established workload standard. This would allow the process of judicial performance evaluation to move beyond the basic indicator of the number of unweighted cases disposed. The proposed case weighting system plans to incorporate both legal and factual (e.g., number of parties, volume of evidence) complexity in the weighting of different types of cases (Kleiman and Ostrom 2015).

The multiple uses and applications of case weighting systems in various jurisdictions in the U.S. and Europe have been well documented (Flango and

Ostrom 1996, Gramckow 2011, Lienhard and Kettiger 2011, Kleiman *et al.* 2013). However, a detailed investigation into alternative methods for developing case weighting systems, particularly as it relates to regions undergoing major judicial reform efforts (e.g., Southeast Europe), has not yet been conducted.

### 3. Two Methods for Developing Case Weighting Systems

Two primary methods exist for the development of case weighting systems. The first method, the Delphi approach, relies on expert opinion to estimate the amount of judge time associated with particular case events. The Delphi approach was the chosen method for the development of case weighting systems for the U.S. District Courts (Lombard and Krafka 2005), Israel (Weinshall-Margel *et al.* n.d.), Kosovo (Kleiman 2010), and for the ongoing efforts in Bulgaria (Kleiman and Ostrom 2015). The second method is based upon an empirical time study, during which judges track all of their working time by case type and activity. Over 30 U.S. states (including, California (Ostrom *et al.* 2011), Michigan (Kleiman and Lee 2011), Minnesota (Ostrom and Kleiman 2010), New Hampshire (Kleiman *et al.* 2005), North Carolina (Lee and Kleiman 2011), Texas (Ostrom *et al.* 2007), Virginia (Ostrom *et al.* 2013), Wisconsin (Ostrom *et al.* 2006), Ontario, Canada (Kleiman and Ostrom 2008), the U.S. Bankruptcy Court (United States Government Accounting Office [USGAO] 2003a), Switzerland (Lienhard and Kettiger 2011), and Germany (Gramckow 2011) have utilized a time study approach. In this section, the two alternative methods are described along with overviews of direct applications that highlight the variation in the use of the methods.

#### 3.1. Delphi Method

The Delphi method is a decision-making technique based on the opinion of experts (Dalkey and Helmer 1963). The method is designed to produce valid assessments of hard-to-measure and hard-to-quantify information and is characterized by a structured iterative process, incorporating controlled feedback. The Delphi method has been used extensively by both government and the private sector and is an accepted and often-used method for developing judicial case weights by a panel of experts (McDonald and Kirsch 1978, Flango and Ostrom 1996).

Under the Delphi methodology for developing case weighting systems, experts (seasoned judges) are asked to estimate the amount of time necessary to handle discrete events (e.g., initial appearance, trial) for different types of cases (e.g., crimes against persons, annulment). The initial responses are compiled, and panelists modify their individual estimates based upon the group estimates. This process is repeated until a consensus emerges. The strengths of the Delphi methodology are that it: 1) uses expert opinion; 2) achieves consensus; 3) is less burdensome than large-scale data collection efforts; 4) can be completed relatively quickly; and 5) is less expensive than traditional quantitative statistical methods. The weaknesses of the Delphi methodology are that it: 1) relies upon responses to specific questions that are subject to the quality of question design; 2) can be unreliable due to errors in human perception; and 3) creates the illusion of precision despite being based on personal estimates. For these reasons, the Delphi method is typically employed in contexts where administrative data are limited, project timelines are short, budgets are tight, cultural and political barriers reduce the likelihood of high judicial participation rates in a time study, and/or a decision is made to burden on judges of data collection.

Three examples of how the Delphi method has been used to develop judicial case weighting systems are presented below. The three examples all rely on an event-based Delphi approach, but highlight differences in the application of the method, the most fundamental of which lies in the manner in which the initial time and frequency estimates were established (site visits, surveys, and reliance on administrative data).

### 3.1.1. West Bank

As part of the Palestinian Justice Enhancement Program (PJEP), which was aimed at improving the efficiency, fairness, and responsiveness of the justice system, the High Judicial Council of the Palestinian Authority (HJC) undertook a project in 2013 to develop an empirically based, transparent formula to use in assessing the appropriate levels of judicial resources necessary to effectively resolve cases for the First Instance and Conciliation Courts. The model was intended to: 1) assess the current allocation of judicial resources; 2) provide a means by which to evaluate the impact of new legislation and court organization on court workload; and 3) assess the resources needed to manage and reduce the existing case backlog.

PJEP staff worked closely with the Optimum Time Standards Committee, comprising members of the HJC, First Instance Court judges, Conciliation Court judges, Court of Appeals judges, and members of the IT Department and Planning and Project Management Unit of the HJC. The Committee defined the relevant case types and case events for which case weights would be developed. Initial estimates of the amount of judge time spent on different pre-decision and decision-related events and the frequency of these events, for each case type, were developed through a series of interviews with judges during site visits to a set of representative courts. For example, for criminal cases in the First Instance Court, judges provided estimates of time and frequency for the first session, the presentation of prosecutor and defendant evidence, prosecutor pleadings, and defendant pleadings. Time estimates and frequency of occurrence were also obtained for discussing the decision with the panel, reading the file and writing the decision, review of the decision by the panel, reading of the decision in court, sentence deliberations, and editing of the decision. PJEP staff compiled the interview responses into an initial set of time and frequency estimates, by event, for each case type. These initial estimates were reviewed by the Time Standards Committee and a consensus was reached on a final set of case weights (Kleiman and Ostrom 2013).

One of the primary reasons for developing the case weighting system in the West Bank was to assess the resources needed to manage and reduce the existing case backlog. Backlog and delay are significant challenges confronting the judiciary of the West Bank. For example, 79 percent of pending criminal cases (as of August 1, 2012) in the First Instance court are over 12 months (1 year) old, with 34 percent being older than 60 months (5 years). The case weighting systems allows for the calculation of the number of judges needed to clear the backlog by multiplying the case weights by the number of cases that exceed the time standards for case disposition.

### 3.1.2. Bulgaria

In 2015, the Supreme Judicial Council of the Republic of Bulgaria developed and implemented a judicial case weighting system. The study was designed to provide a method to determine the number of judges needed to hear cases in a just and timely way, assess the equitable distribution of judicial resources, allow for a boundary analysis of the current administrative regions, and support the existing judicial evaluation process (Kleiman and Ostrom 2015). More specifically, "the workload of judicial bodies in Bulgaria is one of the key criteria applied by the Supreme Judicial Council in exercising its main function of appointing and managing the career of judges and making organizational arrangements that enable the functioning of the courts" (Georgiev *et al.* 2015, p. 3). Unlike the West Bank project, which relied upon interviews with a small set of judges, in Bulgaria preliminary estimates for the time and frequency of events were generated through a nationwide judicial questionnaire (survey).

TNS, a Bulgarian market research agency, worked with the Caseload Analysis and Evaluation Committee (the Committee) of the Supreme Judicial Council (SJC) to develop a case weighting system for regional, district, appellate and administrative

courts. The Committee assisted TNS in defining the parameters of the study, including the case types and events for which case weights were developed through the Delphi method. Questionnaires regarding the duration (time) and frequency of events were sent to all judges in regional, district, appellate and administrative courts.

The judicial questionnaire employed a retrospective approach to determine the amount of time judges spend handling different types of cases. For all cases, the questionnaire asked judges to estimate the time typically needed to complete select actions (e.g., preparations for court hearings) for particular types of cases in two categories: (a) less time-consuming cases and (b) more time-consuming. Judges were then asked to estimate the share of each case type that fall into each category. For criminal and administrative cases only, more specific time estimates were developed by asking judges to consider the last finished case of a particular type and to describe key facts about that particular case (e.g., number of pages of pretrial file, number of witnesses) as well as time spent handling select actions in that case (e.g., review of case at court hearing). After TNS compiled and analyzed the survey results a series of Delphi sessions (focus groups) were held with experienced judges to arrive at a set of judicial case weights. The case weighting system allows the case weights to be adjusted during the life of a case to accommodate for early settlements, the number of pages of evidence, multiple defendants, number of witnesses, and the use of experts. For example, the case weight for a criminal case file with 2,500 to 5,000 pages of evidence would receive an adjustment factor (multiplier) of 1.2 (Republic of Bulgaria 2015).

### 3.1.3. U.S. District Courts

In 2003-2004, the Federal Judicial Center (FJC), with assistance from the Administrative Office (AO) of the U.S. Courts conducted an event-based Delphi study to develop a new set of case weights for the U.S. Federal District Courts. The weights were developed to determine the need for additional judgeships including type, number, and location. The new study replaced a case weighting system developed through a 1993-time study. The update to the case weighting system was warranted because it was determined that the 1993 study no longer reflected current practice due to the changing volume and the nature of cases entering the federal system and changes in case management practices (Lombard and Krafka 2005).

The decision to adopt an event-based, Delphi approach was based primarily on pragmatic considerations. It was determined that an event-based Delphi approach eliminated the record-keeping burden on judges, could be completed in a shorter period of time, and could be updated more frequently and with less time and expense than a time study-based enquiry. Further, the new study was able to rely heavily on administrative data that came from standard statistical reports already submitted to the AO by courts and from data extracts from docketing databases (Lombard and Krafka 2005).

The FJC relied upon two distinct strategies to estimate the frequency of occurrence of case events (trials and other evidentiary hearings, non-evidentiary hearings, in-chambers case-related work) and the amount of judge time associated with those events in 42 civil and 21 criminal case types. First, monthly statistical reports were used to measure objectively the amount of time judges spent in trial proceedings. Second, time and frequency estimates were obtained for non-evidentiary proceedings (e.g., motion hearings) and in-chambers activities (e.g., preparing orders for a summary judgment) through a "structured iterative-feedback technique," similar to the Delphi method.<sup>2</sup> Initially, FJC staff held meetings in

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<sup>2</sup> A case weighting system was recently developed for the Israeli judiciary. The approach taken by the research team is very similar to that of the FJC. The Israeli model relied heavily on administrative data to calculate courtroom time and frequency of hearings and motions and the Delphi method to estimate

twelve circuits to obtain regional estimates on activities for case types for which no objective data existed. More than 100 judges, representing 90 courts, participated. Following the initial meetings, 22 district court judges, all of whom had participated in the circuit meetings, attended a national meeting where consensus was reached on a final set of national case weights. The case weights, developed initially as estimates of judicial time, were converted into relative weights. For example, Firearms (criminal) has a weight of 1.00, while Murder, Manslaughter, Homicide had a weight of 1.99, indicating that the latter requires twice as much district judge work as a Firearms case.

### 3.2. Time Study

The time study method relies upon the tracking all judge time during a discrete data collection period (e.g., one month). During the time study, all judge time spent working directly on different types of cases and activities is also recorded. Time spent performing administrative work, attending committee meetings, receiving judicial education and training, and work-related travel is recorded. The results of the time study are used to calculate a set of case weights that represent a reliable and accurate profile of current judicial practice. Time studies have served as the foundation for judicial case weighting systems in over 30 U.S. states<sup>3</sup> as well as the U.S. Bankruptcy Court (USGAO 2003a), Switzerland (Lienhard and Kettiger 2011), and Germany (Gramckow 2011). The time study method is considered the gold standard for case weighting studies.

Unlike the Delphi approach, the time study approach provides a direct measure, based upon real-time records, of the amount of time spent on different case-related and non-case-related activities. Despite the apparent advantages of the time study approach, the method has been criticized as expensive, time-consuming, and unduly burdensome to judges tasked with tracking time data. Flango and Ostrom (1996, p. 21) observe that "conducting a time study requires an additional layer of effort to judges and staff who may already feel overworked". The method requires training participants to ensure that they are tracking and recording their time accurately and consistently. Finally, participants have sometimes expressed concern that their individual-level data will be used improperly for purposes that extend beyond the study.

#### 3.2.1. Wisconsin

Over the past twenty years the time study approach has continued to evolve and improve. Methodological and technological changes have altered sampling strategies, the duration of data collection, and the level of detail in data collection and analysis. A comparison of two separate case weighting studies conducted in Wisconsin by the National Center for State Courts highlights many of these changes. A 1995 case weighting study collected data from 79 judges and 40 circuit commissioners in 12 out of 72 counties over a three-week period. Participating counties were selected to be representative of courts of various sizes and geographical locations and with the fastest case processing times (Ostrom *et al.* 1996). An update to the model in 2006 was based on a 4-week time study involving *all* judges and commissioners from across the state of Wisconsin.<sup>4</sup> Web-based data

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time spent preparing for cases and in writing decisions. Further, the case weights are presented as relative weights with the reference being 2.8 minutes, the time for search and entry cases in the magistrate court (Weinshall-Margel *et al.* n.d.).

<sup>3</sup> A listing of studies conducted in the US can be found at National Center for State Courts n.d.

<sup>4</sup> The National Center for State Courts has concluded that a 4-week statewide time study is sufficient to generate accurate and reliable case weights. Earlier studies have relied upon a more extensive data collection period. For example, a study for the US Federal Bankruptcy Court relied on a 10 week time study (United States Government Accounting Office 2003a); a study in the 1990's for Germany was based on a 3 to 6 month time study (Gramckow 2011); and a study for the Swiss Federal Administrative Court required judges to track and record time for specific cases over a 6 month period (Lienhard and Kettiger 2011).

entry provided a more efficient and effective collection strategy that allowed for statewide participation, obviating the need for a sampling strategy to ensure representativeness of the data (Ostrom *et al.* 2006). Furthermore, Web-based data entry allows the research team to monitor participation rates in real time, as opposed to prior studies that relied on paper forms that were periodically mailed or faxed to the research team. Researchers have also made use of Web-based training to educate time study participants about the project and to improve the accuracy and reliability of data entry. This training, in conjunction with real-time monitoring of data entry, has resulted in time study participation rates that are in excess of 95 percent of all judges in many states.

Collecting data from all jurisdictions also allows for an examination of differences among practices across jurisdictions. For example, a Web-based time study conducted for Justices of the Peace in Ontario, Canada, revealed significant differences in travel demands for judges in different regions. Justices of the peace in the North East traveled 81 minutes per day and justices of the peace in the North West traveled in excess of 100 minutes per day, on average. Both groups of judges traveled in excess of the travel time of justices of the peace in the other five regions, who travel roughly 30 minutes per day. This information was used to develop separate judge year values that accommodate these observed differences (Kleiman and Ostrom 2008).

### 3.2.2. Virginia

A recent case weighting study for the Circuit, General District, and Juvenile and Domestic Relations District Courts in Virginia illustrates the state-of-the-art case weighting approach undertaken by the National Center for State Courts for courts in the United States. This method is highly participatory, includes a four-week time study, a quality-adjustment process, and is typically completed within a 12-to 15-month study period. The NCSC approach is designed to produce the necessary empirical data with minimal intrusion and demands on busy judicial officers. Data from the past ten studies shows that judicial officers spend less than 10 minutes per day to fully participate in the time study data collection process. This is in comparison to the 20 to 30 minutes of judge time per day it took to fill out forms in the development of the case weighting system in Germany (Gramckow 2011).

In 2012, the General Assembly of Virginia directed the Supreme Court of Virginia to develop and implement a weighted caseload system to evaluate the current allocation of judicial resources, determine the appropriate level of judicial resources in each circuit and district, and to examine judicial boundary realignment. The National Center for State Courts (NCSC) was contracted to conduct a weighted caseload analysis. The study was conducted over a 15-month period and utilized a time study to develop an empirical profile of judicial work. The case weighting system was developed through five inter-related tasks.

First, a Judicial Needs Assessment Committee, consisting of 15 judges and three courts representing Circuit, General District, and Juvenile and Domestic Relations Courts, was established by the Chief Justice of the Virginia Supreme Court. The committee met four times over the course of the project to advise and comment on the general study design, the selection of case types, alternative boundary alignment models, as well as to participate in a final set of meetings to review and reconcile all aspects of the project. Filing data for 2010, 2011, and 2012, by case type and jurisdiction, were provided by the Office of the Executive Secretary. Second, a four-week statewide Web-based time study was conducted. During the time study, all Circuit and District Court judges in Virginia were asked to track all of their working time by case type category and case-related event along with non-case-related work. Web-based time study training videos were provided to all judges. A total of 375 full-time judges, or 97 percent of all Virginia trial court judges participated in the study. The time study data and caseload data were used to develop a set of preliminary case weights that represent the average amount of

time judicial officers currently spend handling each type of case. The time data also provided an empirical reference in establishing the judge year value.

Third, NCSC staff conducted site visits in 11 judicial circuits and districts, including both urban and rural courts from all geographic regions of the state. The interviews conducted during these site visits allowed project staff to document procedures and practices believed to increase efficiency and quality, as well as resource constraints that might inhibit effectiveness. Fourth, a Web-based sufficiency of time survey was administered to all judges statewide to gather perspective on the sufficiency of time to perform key case-related and non-case-related tasks. Fifth, three separate quality adjustment sessions with groups of seasoned judges were held to provide a qualitative review of the preliminary case weights. Using the Delphi method, group members were asked to draw on current practice (as measured by the time study), judicial perspective (as measured by the sufficiency of time survey and the site visits), and their personal experience to make recommendations for particular case types and functions for which additional time would allow a judge to more effectively handle a case. The result was a final set of quality-adjusted case weights and the recommendation that the number of judges in Virginia's trial courts is inadequate to handle the total workload of the courts. The weighted caseload model showed a need to fill current vacancies as well as adding an additional 13 judges to the current total of 158 authorized Circuit Court judges and 17 judgeships to the current total of 117 authorized Juvenile and Domestic Relations District Court judges (Ostrom *et al.* 2013).

#### **4. Case weighting in three Balkan Territories**

Interviews were conducted with key judicial system actors from Bosnia and Herzegovina, the Republic of Serbia, and the Republic of Kosovo to document their prior experience with case weighting systems and the current method used to determine the number of judges. Further, the interviews were designed to assess the quality and content of existing data sources and any barriers to the development of a case weighting system. A series of profiles follows that feed directly into a set of pragmatic findings/recommendations regarding the development and use of case weighting systems in emerging or transitional democracies.

The method used to select the three countries to be profiled is based on the results from a more expansive project conducted by the Regional Coordinating Council (RCC) to support the South East Europe 2020 strategy for the implementation of a regional action plan in the area of justice (Langbroek and Kleiman 2016). The RCC report focused on weighted caseload and backlog reduction policies in six South East Europe beneficiaries (Albania, Bosnia and Herzegovina, The Former Yugoslav Republic of Macedonia, Kosovo, Montenegro, and Serbia). Basic data on caseloads and existing judicial resources as well as structured feedback on the application of each country's weighted caseload system was sought by questionnaire and follow-up phone interviews. This largely qualitative research design emphasized clarifying the experience of individuals directly involved in attempting to develop a more systematic, empirical approach to determining judicial need in countries with limited history and familiarity with such techniques. The focus was on better understanding the challenges and complexities each country faced. And while only a few individuals from each country typically participated making the findings not fully generalizable, the findings remain relevant and potentially transferrable to other countries in similar settings.

The main criteria for inclusion in the profiles was sufficient involvement in the RCC project. Regrettably, the quality of responses and the extent of participation varied among the six Beneficiaries. Questionnaire feedback and interviews with key stakeholders in Albania, The Former Yugoslav Republic of Macedonia, and Montenegro produced limited insight and explanation related to their experience

with developing and implementing case weighting systems. As a consequence, their experiences are excluded from the current review.

#### *4.1. Bosnia and Herzegovina*

A determination of the number of judges in the first instance courts (Cantonal, Municipal, and Basic Courts) was first established by the High Judicial and Prosecutorial Council (hereafter, the Council) in 2003 and was reevaluated in 2009. In 2009, the sole criterion used to determine the number of judges was the number of incoming cases, based on approximately five years of historical caseload data. A case weighting system also exists, but is used primarily to evaluate the performance of individual judges rather than to allocate judges across courts or geographic areas. The weights, last updated in 2011, were developed by a group of experts convened by the Council, to establish the number of cases each judge is expected to resolve on a monthly and annual basis, by case type, disposition type, and for each court level.

A 2007-2010 USAID-funded project sought to develop a more refined case weighting system based on a time study conducted in a set of pilot courts. An initial effort relied upon paper-based data collection and was highly detailed, seeking to establish the number of minutes required for each step in the life of a case. Low participation rates led to a second attempt by the High Judicial Council to implement this approach through the centrally administered case management system, but this effort also failed. This prior negative experience with an overly detailed and burdensome time study remains the most serious challenge to any future attempt to implement a time study. Judges in Bosnia and Herzegovina understand the rationale for measuring workload, but they do not accept the time study method or the need to measure time spent on an overly detailed set of specific tasks.

#### *4.2. Republic of Serbia*

The total number of judges in the Republic of Serbia is currently determined by the High Judicial Council in accordance with its responsibilities as laid down in Article 13, item 15 of the Law on the High Judicial Council. The total number of judges is determined for each court individually, taking into account the jurisdiction of that court, the average number of items in each matter in the last three years, the area covered by the jurisdiction of that court, as well as the average expected number of issues resolved in each matter. In addition, the High Judicial Council utilizes a quota system for the number of cases each judge is expected to resolve in a month for the evaluation of the performance of judges and court presidents (e.g., 24 civil cases in a month). These quotas were developed through expert opinion and public debate.

The High Judicial Council recently completed a project aimed at developing a case weighting system for the Republic of Serbia. The project was directed by a team of international consultants with support from USAID. The project made use of both the Delphi method and a targeted time study to develop case weights. A workgroup consisting of 12 judges from all courts and instances, as well as from the special jurisdiction courts (commercial courts, administrative courts and misdemeanor courts), provided guidance to the project team. The case weighting system was designed as a way to determine the number of judges needed in the Republic of Serbia, equitably allocate work to judges in the courts, and to evaluate judges.

The development of the case weighting system proceeded in three stages. In the first stage, the workgroup used the Delphi method to assign types of cases to three categories of complexity: simple, complex, and extremely complex. In phase two, 386 judges in 37 courts kept time logs of every procedural action that they conducted over a four-month period. Phase three represented the data analysis phase where the time needed to complete a single case was calculated. Despite the

completion of all three phases in 2012, the results have not been officially adopted and no official report is available.

#### *4.3. Republic of Kosovo*

Kosovo's experience with case weighting began in 2003 with the Justice System Assessment Review Team (JART) proposal for 1<sup>st</sup> and 2<sup>nd</sup> Instance Criminal and Civil cases in District and Municipal Courts. The weights were developed through a two-stage process that relied upon judicial interviews to develop initial estimates of case weights, followed the review and refinement of the initial estimates by a focus group. The Department of Statistics of the KJC Secretariat did not use the JART case weights for planning or for budget requests. Instead, the Department of Statistics continued to rely on a previously established quota system that was based upon the calculation of the number of cases a judge might resolve in a month.

A second case weighting system was developed by the USAID Kosovo Justice Support Program (KJSP) in 2010. The primary goals of the KJSP project were to: (1) develop a set of judicial case weights that allow for the measurement of judicial workload in District and Municipal Courts throughout Kosovo; (2) evaluate the current allocation of judicial resources among courts; (3) establish an empirically-based, transparent formula for the Kosovo Judicial Council (KJC) Secretariat to use in assessing the appropriate levels of judicial resources necessary to effectively resolve cases; and (4) provide a means by which to evaluate the impact of new legislation and court organization, functioning, and jurisdiction of the courts on court workload (Kleiman 2010). The update of the case weighting system was conducted through a series of site visits during which judges were asked to discuss the way that cases are currently handled, the adequacy of current resources, changes since the previous study in the way cases are handled, and any factors that impact the complexity of handling different types of cases. Additionally, a Delphi session was held where seasoned judges and members of the KJC Secretariat were asked to review and adjust the JART case weights to align them with current practice and recent changes in the law. The KJSP case weighting system is currently used to determine the number of judges needed in Kosovo's Courts and to assign judges to different jurisdictions, and to determine the norm, or performance quota, for judges.

The Director of Kosovo Judicial Council Secretariat has indicated that there is a strong desire for another update to the case weighting study. An update is warranted as a result of two significant changes have occurred that impact the efficacy of the current case weights. First, changes have been made to the criminal procedure code; second, there was a change in the structural organization of the courts in 2011. It is anticipated that the new case weighting system will be used for backlog reduction, determining the number of judges, and the distribution of judges among courts, especially in light of the new legal initiatives.

Backlog is currently a key concern for the judiciary of Kosovo. As of August 2013, there were approximately 142,000 cases designated as backlogged. In response, the KJC has adopted a National Strategy on Backlog Reduction. The plan calls for reviewing the overall caseload and workload for each judge and reviewing and analyzing the workload distribution within each court as well as across the judiciary. Efforts at implementing data-based management practices have been constrained by the lack of an automated case management system. Strategic Goal #6 of the plan calls for "adequate automation, computerization and information management resources so that the KJC and the Courts can make timely, informed and reasoned policy and management decisions" (Kosovo Judicial Council 2013, p. 2).

## 5. Conclusion and Practical Findings

The court systems in the three Balkan jurisdictions profiled above share some key features, while differing significantly with respect to others. For example, Kosovo lacks an automated case management system, whereas Bosnia and Herzegovina has recently implemented a case management system that is said to produce useful management information. Quotas (sometimes called "case weights," and defined as the number of cases a judge is expected to resolve) are used in all three jurisdictions, although their nature and the manner in which they are used varies; most quotas are used primarily for evaluation of judges, and some are also used to assure equity in the distribution of work among judges within a court and/or to determine the number of judges needed in each court. Finally, the experience of these three jurisdictions with respect to Delphi- or time study-based case weighting systems ranges from mixed (Delphi-based case weights used in Kosovo, Delphi and time study-based weights developed and not used in Serbia) to negative (time-study based case weights developed and not used in Bosnia and Herzegovina).

Three interrelated findings emerge regarding the added value of developing and utilizing a case weighting system, the selection of the type of method (Delphi v. time study) to use, and the importance of accurate and reliable case statistics. The recommendations are provided to ensure that future case weighting efforts result in a valid, reliable, and useful case weighting systems that will inform decisions about the efficient and equitable distribution of judicial resources as well as backlog reduction strategies. While the three findings are targeted directly at transitional court systems, they hold equally for consolidated court systems (Hanson et al., 2010).

*Finding 1:* All court systems should develop and implement a case weighting system. Around the world, nation-states and jurisdictions within nations are increasingly adopting the weighted caseload method of judicial workload assessment as a best practice. Case weighting systems provide a means to differentiate the work associated with different types of cases that is empirically-determined, based in current practice, and easily understood and explained. A credible case weighting system provides decision-makers with a robust and valuable management tool that can be used to inform a diverse set of management decisions. Case weighting systems can be used to:

- Determine the complement of judges needed to efficiently and effectively handle the workload of the courts. For the judiciary to manage caseloads effectively, dispose of court business without delay, and deliver quality service to the public, adequate resources are essential. A recent report by the Organization for Security and Co-operation in Europe (OSCE), Mission in Kosovo, states that insufficient judicial resources may have direct adverse repercussions on fundamental human rights (e.g., the right to a trial within a reasonable time; the right to a reasoned decision) and may prevent judges from adjudicating cases within legal time frames which "may deepen public distrust in courts and erode public confidence in the rule of law in general" (Organization for Security and Co-operation in Europe 2009).
- Determine additional resources that are needed to reduce and eliminate existing backlogs. The application of additional judicial resources must take place in the context of a comprehensive backlog reduction strategy that evaluates the way in which cases are currently handled and identifies and addresses impediments to the efficient and effective handling of cases.
- Equalize the workload between judges in the same court. Understanding the workload associated with the pending caseload allows for improved case assignment practices and, when necessary, the reallocation of cases to help ensure a balanced caseload. Further, the case weights can be incorporated into the random case assignment algorithm to help ensure that all judges in

a court random mix of cases of varying complexity that constitutes a similar workload.

- Balance judicial workloads among courts of the same type throughout a region or a country. An examination of workload and judicial need at the court level will allow for an assessment of the equitable distribution of judicial resources and inform decisions to reallocate cases or to transfer judgeships. Furthermore, it allows for the analysis of the boundaries of administrative regions. The issue of access to justice for all citizens should play an important part in the decision calculus for any adjustments to the assignment of judges or the boundaries of judicial regions.
- Inform the judicial evaluation process. Comparing the workload of individual judges to an established workload standard will provide additional insights into existing performance indicators (e.g., time to disposition; age of pending caseload). For example, knowing the workload of individual judges will help answer whether a particular judge's growing backlog of cases is a result of poor case management or excessive workload.

*Finding 2:* Transitioning or nascent court systems should generally use the Delphi method to develop weighting systems. The Delphi method is less burdensome, less expensive, and less time-consuming than the time study method. Recent experiences in Bosnia and Herzegovina and Serbia highlight the difficulties in developing and implementing a case weighting system via the time study approach. In contrast, experiences in Kosovo and the West Bank demonstrate that credible case weighting systems can be developed and implemented based upon the Delphi method.

A key to the development of any case weighting system, based on either the Delphi or time study method, is obtaining commitment and buy-in from key stakeholders, including judges, judicial council members, and the Ministry of Justice. This necessitates a clear articulation of the intended uses of the case weighting system as well as transparency in the process used to develop the case weights. Prior to conducting the study, a comprehensive assessment of readiness should be undertaken. This assessment should determine the capacity for data collection and data analysis and the willingness of judges and other key stakeholders to participate in the study. Objectivity and transparency can be improved by working with an independent consultant.

Ultimately, the selection of the 'best' method (Delphi v. time study) must be a pragmatic decision. Although the time study is considered the gold standard, Delphi-based case weighting systems can also provide useful and valuable information to manage the efficient and effective handling of cases.<sup>5</sup> Key questions to consider when selecting the most appropriate method include: What is the project timeline? What level of burden (e.g., data collection) are judges willing to take on? How much money is available to conduct the study? What data limitations exist? Have reforms (e.g., changes to the structure of the law or courts) recently been implemented? Based on the experience of the authors the answers to many of these questions would lead most transitioning or nascent court systems to adopt the Delphi method. As technological and organizational capacities improve, the Delphi-based case weights can be validated by a targeted time study at a future date.

*Finding 3:* Accurate and reliable caseload statistics are a necessary component of any case weighting system. The continued integrity of the case weighting system depends on maintaining the quality of record keeping and statistical reporting. Specifically, accurate calculation of judicial workload requires knowing how many

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<sup>5</sup> Building on the work of Karl Weick (1993), Okoli and Pawlowski (2004) view the use of the Delphi method as a process similar to bricolage, a French term meaning to "use whatever resources and repertoire one has to perform whatever tasks one faces" (Weick 1993, p. 352).

cases of each type are filed with each court. If over- or under-counts of filings regularly occur in some courts, then the estimate of workload will be unreliable and inaccurate.

Regular and thorough auditing and feedback for correcting data collection problems is critical for achieving reliability in reporting across courts. Data reliability and accuracy could also be improved by adopting a uniform, country-wide case management system and providing training to staff on data definitions and input. Often the single most significant source of delay in conducting a workload assessment is the time required to compile, review, and organize the data to ensure its integrity for this purpose. Any study that proceeds without this investment will be quickly discredited.

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