Combining A Weighted Caseload Study With An Organizational Analysis In Courts: First Experiences With A New Methodological Approach In Switzerland

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Abstract:
Using different methodological approaches of weighted caseload studies results in case weights that indicate the current performance of a court. However, as the case weights are often used in allocating resources or cases, the results of a weighted caseload study may be contested with the argument that it is not clear whether they are based on an average good performance or whether higher or lower values could be assumed if operational management were optimized and/or qualitative aspects taken into account. Suitable methods therefore usually include quality adjustments of the case weights. Also, the case weights can be validated using benchmarking. In Switzerland there is a general lack of workload measurement in courts. Therefore, in an analysis of the courts and the cantonal public prosecutor’s service (PPS) of the Canton of Basel-Stadt another method of validating case weights has been applied: the combination of a weighted caseload study with an organizational analysis. This paper introduces the new methodological approach in Switzerland and outlines preliminary methodological findings.

Keywords: Weighted caseload study, workload assessment, organizational analysis, court management, methodology

1. Introduction
Using the weighted caseload methods described in various reports and publications results in case weights which illustrate the current performance of a court. However, as case weights are often used in allocating resources or cases, the results of a weighted caseload study may be contested with the argument that a bad performance of the court was measured and the court could perform much better if the judges and clerks worked more efficiently and/or the organization was changed. Suitable methods therefore usually include quality adjustments of the case weights. In countries where benchmarking court performance is possible, a cross-validation of the weighted caseload study may be carried out to provide a better analysis of the performance of the court. In Switzerland, there is a lack of workload measurement in courts. In response to this, in an analysis of the courts and the Public Prosecutor’s Service (PPS) of the canton of Basel-Stadt, the weighted caseload study was combined with a comprehensive organizational analysis. This methodological approach was applied for the first time in Switzerland. This article presents an overview of the methodology used and outlines the preliminary methodological findings.

2. The Problem of Validating Weighted Caseload Studies

2.1. Quantitative methods for investigating workload

Determining case-related workload

When conducting weighted caseload studies, different methodological approaches may be applied to quantitative analyses of case-related work. They include:

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2 See LIENHARD / KETTIGER (2011).

3 Case weights or weighted caseload values represent the average amount of work time used for processing cases of different case categories.

4 See KLEIMAN / LEE / OSTROM (2013), p. 244.
1. Measuring the time taken for procedural sequences: This is probably the best known method and in the USA, it is the most commonly used for obtaining case weights. This method involves using time records to measure the time spent on case-related work at each important procedural stage in predetermined case categories. The first step is to define the key elements and/or phases in the procedure of a specific case category (i.e. the workflow pattern). The second step is to ascertain how often these elements occur on average when processing a case in a specific case category (e.g. ordering an exchange of submissions, questioning the parties, etc.). The third and last step is to use time measurements to determine how much working time persons involved in the judicial process spend on average on the procedural elements concerned. The total of the average times spent on each main element then corresponds to the weight per case.

2. Measuring the time per case: An alternative approach to determining case weights involves recording the entire working time spent on dealing with a specific case. For example, in a study at the Swiss Federal Administrative Court, all judges and clerks of court recorded their case-related working time over a period of seven months. This method then allows the court to average the total amount of work per case in a specific case category so that a case weight per case category is obtained. The disadvantage of this method when compared with the first method is that the case proceedings as a whole are regarded as a “black box”. It is not possible to ascertain the workload involved in specific elements of the proceedings or procedural steps. For this reason, in the study at the Federal Administrative Court, the case-related working time was recorded in two separate stages: the instruction or evidence-gathering stage, and the actual judging stage. Self-reports to measure the time spent per case and the time taken for procedural sequences is regarded in the court-related research as highly reliable.

3. Time estimates: To obtain case weights, one can also work with methods based on time estimates for specific case categories. In some cases, an estimation process according to the Delphi method is also used. With this process, it is also possible to determine either (a) the time spent on individual key elements of the procedure or (b) the entire time spent on a case in a specific category. In the Delphi method, the amount of work is first estimated by external experts or by the judges themselves. They can then reassess and revise their estimates in each additional round, based on the estimates of the other experts (often two to three iterations). The Delphi method was used in various federal states in the USA such as Alabama, Arkansas, Georgia, Maryland, Michigan, Pennsylvania and South Dakota. The advantage of this method is that it can be used by small courts with a very small caseload. The weakness of the Delphi method however is that it only provides answers to specific, narrow questions. It leads to a convergence in the estimated values and it gives the illusion of scientific precision however it relies on estimated values that are based on the personal assumptions of experts who are often not impartial.

What is common to all three of these methods for weighted caseload studies is that they use recorded or estimated working time value in hours, days or percentages of full-time staff. They all aim to determine the workload in relation to a full-time equivalent. A common reference parameter in the USA is the so-called “judge-year”. In a study conducted on behalf of the former administrative court of the Canton of Lucerne, however, the case weights were expressed as the percentage of full-time staff per case, on the assumption that this would be the most suitable output parameter for all the sectors in which caseload management is used.

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5 This applies at least in the USA; in Germany work has also been done using this method, see BUNDESRECHTSANWALTSKAMMER (1974a), p. 184 ff., ANDERSEN (2002), p. 56 ff.; for more information on the PEBB§Y system see RIEDEL (2013).
9 See Flango et al. (1996), p. 119.
15 The judge-year value is the term for the average time that a full-time judge can spend each year during office hours on case-related work (total effective working time minus time spent on non-case-related work and minus absences that count as working time), see Stenz (1988), p. 380; Caylor (2000), p. 38.
Determining non-case-related workload

In addition to the actual case-related workload, i.e. the average time worked on processing a case in a specific category, the working time that is not spent processing cases (“non-case-related working time”) is also normally examined. Usually a distinction is made between four types of non-case-related work:17

1. **General (non-case-related) administrative activities:** This includes all administrative work and the work of the court management board not related to case processing or case-related court sittings, such as meetings of court management bodies, committees and project working groups. It can also include work related to the management of subordinate staff such as job interviews, staff appraisal meetings, etc.

2. **Education and advanced training:** This includes all non-case-related activities related to personal and professional education and training such as time spent reading the latest literature and case law, participating in seminars within the court or in external training events, conferences and symposia.

3. **Public service activities:** This includes all activities for the state and society such as participating in hearings conducted by parliamentary committees, lecturing work at universities, attending meetings with other courts or with lawyers associations etc.

4. **Private activities:** This includes unproductive time on business trips18, vacation, short breaks or absences due to illness.

Different methodological approaches can be applied to determine the non-case-related workload including:

1. **Calculation:** The non-case-related workload is calculated by taking the difference between the entire effective working time and the recorded case-related working time. The advantage of this method is that it involves hardly any additional work or costs to the court. The disadvantage of this method is that the non-case-related work is a “black box” and accordingly no itemization of the non-case-related working time is possible.

2. **Recording:** The staff of the court record their case-related working time as well as their non-case-related working time each day in itemized, predefined categories. At the end of the nominated study period, the average working time spent on each category of non-case-related work and for each staff function is calculated. The advantage of this method is that the non-case-related work can be itemized and calculated according to the predetermined categories. Additionally, this procedure makes it possible to validate the values obtained for the case-related work. The disadvantages are that it requires additional effort and may involve additional cost to the court.

3. **Estimation:** The non-case-related working time is estimated in a procedure analogous to that used in the study of the case-related work.

Although the data on non-case-related work cannot be used directly in the allocation of staff or of cases, it allows conclusions to be drawn that are of general significance to the management of courts. This data also assists courts to assess the overall resources required.

### 2.2. The Problem of Case Weights as Values for Planning

Irrespective of the method applied (see section 2.1), the case weights obtained in principle represent actual values.19 A case weight indicates the average amount of work involved at a specific court at a specific time for processing a case in a specific category. Case weights are primarily of use in relation to the allocation of resources and the allocation of cases within the court.20 For planning activities, such as the allocation of resources, desired values should in principle be assumed. As actual values, the case weights obtained using the methods described are inherently unspecific in that it is not clear whether they are based on an average good performance or whether higher or lower desired values could be assumed if operational management were optimized or qualitative aspects taken into account.21

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18 In the USA, work-related travel is often regarded as its own category of non-case-related work, see Wisconsin Director of State Courts Office (2006), Appendix 1, p. A-1.
19 This applies in particular to the method of measuring using a time study (see Section 2.1). When making estimates using the Delphi process (see Section 2.1), the value obtained can also contain a "desired dimension"; see e.g. OSTROM/KAUDER (1997), p. 93.
Current practices indicate that the case weights obtained can be assessed in various ways with regard to their suitability as a planning value for the allocation of resources and cases:

1. **Comparison/benchmarking:** If case weights are available that have been obtained using the same method from another similarly organized\(^22\) court that is subject to the same procedural legislation, the values for the individual case categories can be compared. If there are considerable discrepancies, these must be investigated in more detail. If the case weights are largely comparable, this indicates to a certain degree that both courts at least perform according to an operational average.\(^23\)

2. **Quality adjustments:** The case weights obtained are verified using qualitative methods. The quality adjustments developed by the National Center for State Courts (NCSC) and widely used in the USA involve the use of both site visits to courts and surveys. The site visits consist of structured interviews (groups or individuals) and/or focus groups\(^24\) with judges and court staff in relation to the workload and the possibility of optimizing internal procedures.\(^25\) The surveys are often internet-based and known as ‘sufficiency of time’ surveys, in which all or a random sample of court staff are asked to identify particular tasks, if any, where additional time would allow them to handle their cases more effectively.\(^26\) These time surveys also include questions on non-case-related duties, as well as space for judges and clerks to comment freely on their workload. On the basis of these additional investigations, if need be, a case weight (desired value) can be fixed that diverges from the value obtained (actual value) so as to take greater account of the quality requirements of the court in relation to the allocation of resources and cases.

3. **Combining the weighted caseload study with an organizational analysis:** In parallel to ascertaining the case weights, a comprehensive analysis of the court’s organization is conducted. In contrast to quality adjustments, the focus can be extended beyond issues of operational and judicial processes to cover the entire spectrum of the performance and organization of the court. The validation of case weights is therefore open-ended in relation to the results\(^27\) and adjustments, both upwards and downwards, can be made to the values based on the organizational analysis.

3. **The Swiss Case**

3.1. **Context of the Study of the Justice System in the Canton of Basel-Stadt**

The introduction of the new Civil Procedure Code (CPC) and the Criminal Procedure Code (CrimPC) in January 2011 required all Swiss cantons to make changes to the organization of their justice systems. These changes led to uncertainties with regard to staffing needs at the courts and in the PPS of the canton of Basel-Stadt. In response, in September 2011 the cantonal Court of Appeal and the cantonal government commissioned a weighted caseload study and an organizational analysis of the cantonal Court of Appeal, the civil court of first instance, the criminal court of first instance and the cantonal PPS.\(^28\) The objective of the weighted caseload study was to provide information on the workload and time involved in case processing and non-case related work. The aim of the organizational analysis conducted in parallel was to ascertain whether the courts and the cantonal PPS fulfil their tasks under the law within an appropriate organizational framework and through suitable procedures. It was also envisaged that the review of the organization of structures and workflows would give information on the potential for optimization.

The data was collected between March 2013 and February 2014 and was evaluated from March to July 2014. The final report was presented in February 2015.

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\(^{22}\) On the problem of comparing court-type organisations, see LIENHARD/KETTIGER (2010), p. 13; ibid. DOYLE (1978).

\(^{23}\) A situation in which the performance of the court used for comparison purposes and the performance of the court being studied are both poor (below-average) cannot be completely discounted.


\(^{27}\) In contrast to the “Sufficiency of Time Survey”, where the primary question is whether more time should be allowed in order to guarantee the quality of the judicial process, see OSTROM/KLEIMAN/LEE/ROTH (2013), p. 14; TALLARICO/DOUGLASS/FRIESS (2013), p. 9 f.

\(^{28}\) See LIENHARD/KETTIGER/USTER/WINKLER (2015).
3.2. Design of the Weighted Caseload Study

The weighted caseload study was conducted by measuring the time taken for procedural sequences (see section 2.1) and non-case related work using self-reports. All judges and employees of the courts, as well as the magistrates and employees of the cantonal PPS involved in judicial or prosecution activities made their own records of all case-related and non-case-related work from 4 March 2013 to 28 February 2014 using the relevant recording tools. The non-case-related work was recorded in 11 categories while the case-related work was recorded by noting the time taken to complete each task categorized according to a predetermined procedural sequence, the specific case category as well as the function of the person recording the time. This enabled the study to illustrate firstly the workload of a person in a specific function for an average case of a specific case category. Secondly, it made it possible to show what percentage of the entire work a person in a specific function did at which stage of the proceedings.

In certain fields which had a large number of cases, special studies were carried out so that the investigations did not place an undue burden on the work of the courts and the cantonal PPS.

3.3. Design of the Organizational Analysis

Organizational Analysis

There is no generally recognized method for the organizational analysis of state authorities or public administrations, as far as can be seen. Traditional approaches to analyses of businesses or consulting based on management models cannot be applied indiscriminately in the public sector – and even less so in courts – and ideally can only be used as a source of methodology. Given this starting position, one option is to carry out an organizational analysis based on the elements which, according to expert opinion, are found both in business management organizational theory, such as the new St. Gallen Management Model and the Swiss doctrine on public management, and are relevant to the internal workings of the organization concerned. These elements are strategy, structure, potential and culture.

The efforts being made in academic circles and in the relevant professions towards optimizing court management have recently highlighted a range of elements of good court management, which can be summarized as follows: strategic principles; client-friendliness; employee satisfaction; management structures; management support; management instruments; caseload management; controlling; quality assurance and development; and certification. Moreover, these elements can all be assigned to the fields of structure, potential and culture.

In the study conducted in the canton of Basel-Stadt, the strategy element was omitted in line with the mandate. The organizational review was therefore conducted based on three organizational elements: structure, potential and culture.

1. Structure: This encompasses structural organization, workflow management (i.e. core processes) as well as management support instruments.
2. Potential: This covers human resource issues such as the allocation of staff, professional potential and employee satisfaction as well as space issues and information technology.
3. Culture: This includes management and communication/information.

In order to identify the specific issues that an analysis and evaluation of the organization of the Basel judicial authorities permit, both traditional tools from business management and management consulting and tools from quality management were used. The latter are found primarily in quality assurance systems, in particular the Common Assessment Framework.

30 See e.g. Schwan/Seipel (2002), p. 115 ff.
31 See e.g. Christ (2006), p. 137; Boyne (2003); see also the overview of literature on variables of administrative performance in Ebinger (2013), p. 82 ff.
32 Described inter alia in Ruegg-Stürm (2002); Ruegg-Stürm (2004), p. 65 ff.
33 See Schedler/Proeller (2011), p. 19 ff., in particular Figs. 1-3, p. 21; Thom/Ritz (2008), in particular Fig. 5, p. 42.
35 See for more detail Lienhard (2009); experts in the USA envisage a similar holistic approach to court management, see Conference of State Court Administrators (COSCA) (2008), p. 3 and List of Indicators COSCA, p. 6; see also Albers (2008).
36 The procedure corresponds to that used by the CCPM in reviewing the organisation of the Canton of Solothurn’s Prosecutor’s Office; in a comprehensive study of the state of court management in Switzerland in 2012, the CCPM used a similar structure for the fields considered, see Lienhard/Kettiger/Winkler (2012), p. 5.
37 More recent administrative research indicated that job satisfaction and active organisational commitment of employees has a directly positive effect on the performance of the organisation, see Ebinger (2013), p. 73 ff.
38 According to a recent study, certain aspects of management have a direct influence on the performance of public administrations, see Ebinger (2013), p. 275 ff.
(CAF)\textsuperscript{39}, ISO 9001 (DIN EN ISO 9001), the Trial Court Performance Standards (TCPS)\textsuperscript{40}, CourTools\textsuperscript{41} and the questionnaire from the European Commission for the Efficiency of Justice (CEPEJ)\textsuperscript{42}.

What is particularly important as far as efficiency is concerned are the internal interfaces and interfaces with other authorities. Special significance was therefore accorded to the inter-organizational and intra-organizational interface question.

The organizational analysis is based – in the sense of methodological triangulation\textsuperscript{43}, i.e. with a basis in various methods – on the three methodological pillars of a document analysis, interviews and feedback loops. In addition, when designing the research procedure, experts made additional visits to the courts and the cantonal PPS.

Document Analysis
For the document analysis, the courts and the cantonal PPS provided the experts with numerous documents relevant to organization and management. The documents included organigrams, functional diagrams, work rosters, standby duty lists, regulations, directives, guidelines, house regulations, process diagrams and workflows, job descriptions, as well as complete case statistics for 2011 and 2012. They also provided information on the current staffing numbers (full-time staff expressed as percentages for each category of staff).

Interviews
A total of 53 interviews were carried out. They were conducted under the principle of actor triangulation\textsuperscript{44} as personal interviews and structured according to a set of questions. The interviews were evaluated in anonymized form based on an aggregation of the responses to each question, for each court and for the Cantonal Prosecutor's Office. The interview partners were selected according to the principle of actor triangulation: All functions, organizational units and hierarchical levels were adequately represented. In addition, attention was paid to achieving gender balance in the selection.

Feedback Loops
Feedback loops were carried out both in relation to the summarized results of the interviews and in relation to the draft of the final report. They were conducted in the form of workshops with the support groups from the courts and the cantonal PPS, so as to meet the demand for a learning process and as a formative evaluation.

3.4. Preliminary Methodological Findings
An initial methodological evaluation shows synergies between the weighted caseload study and the organizational analysis.

The organizational analysis, which was conducted in parallel to the workload assessment, showed – in accordance with the terms of reference (see section 3.1) – whether the courts and the cantonal PPS in the Canton of Basel-Stadt are suitably organized and whether they have suitable procedures in place to carry out their tasks. It further provided information on the potential for optimization.

As a result of the study, the organizational analysis highlighted that:

- In many areas the case weights obtained may be used as a starting point for planning resources. In individual areas, however, the values have to be adjusted because there is still serious potential for optimization or because the judicial authority is already clearly overburdened.
- The degree of the excess burden can be estimated fairly accurately based on the analysis of the interviews.\textsuperscript{45}
- In the Basel case the organizational analysis helped to get to the bottom of case weights determined in the caseload study that revealed to be invalid using a mathematic cross-check. The information gained from the interviews and from analyzing documents revealed that persons of one division temporarily helped out to deal with

\textsuperscript{39} A quality assurance approach for public administrations commissioned by the EU and developed on the basis of EFQM; see http://www.caf-zentrum.at/de/file/11407/download (accessed: 01.06.2015).
\textsuperscript{40} A system for measuring performance and quality developed in the 1990s in the USA by the National Center for State Courts (NCSC); see CASEY et al. (2003), http://contentdm.ncsconline.org/cgi-bin/showfile.exe?CISOROOT=/ctadmin&CISOPT=433 (accessed: 01.06.2015).
\textsuperscript{41} A system of performance indicators developed by the NCSC in the USA, which provides courts with a balanced overview of the performance and quality of their activities; see http://www.courtools.org/ (accessed: 23.02.2015).
\textsuperscript{42} The CEPEJ has devised a questionnaire to investigate the quality of the justice system and the courts; see CEPEJ (2008).
\textsuperscript{43} On methodological triangulation, see BERG (2001), p. 4 ff.
\textsuperscript{44} I.e. taking account of all functions and levels when selecting interview partners.
\textsuperscript{45} See LIENHARD/KETTIGER/USTER/WINKLER (2015), p. 86.
the work of a specific function in another division. The information of the organizational analysis proved that the case weights were correct and only the result of the cross-check was distorted.46

- Qualitative aspects of the judicial process can be identified and shown.

The weighted caseload study also supported the organizational analysis:

- It was possible for the various fields of judicial activity to show, in table-form, which function, in how many cases, conducted specific procedures and how much working time was spent on this work in total and on average. This type of overview makes it possible to see whether suitably qualified staff are carrying out the tasks concerned and whether the existing legal and practical options for delegating tasks are being used within the organization. In specific terms, this allows a check to be made, for example, on whether concurring statements in the interviews that suspects are normally questioned first by persons holding a specific position at the cantonal PPS are in fact true.

- Recording the non-case-related working time also provides information, for example, on the extent of project work (involvement in projects within the court, e.g. IT projects) that is carried out by people in specific functions.47

In the case in question, this combination of a weighted caseload study and an organizational analysis provided a good integrated quantitative and qualitative analysis which resulted in a general overview of the state of the courts and of the cantonal PPS. As a result, a certain sustainability in the study work can be expected. If in the future certain organizational changes in a specific area are made at a court (ideally based on the recommendations of the study), the quantitative effects in particular on the workload can be examined by conducting a weighted caseload study using the same method but limited to the area or division in question.

### 4. Conclusion

A preliminary evaluation of the experiences described suggests that combining a weighted caseload study with an organizational analysis has proven its value and that using the organizational analysis for the qualitative validation of a weighted caseload study represents an alternative to conventional quality adjustments. In addition, synergies are created between the two studies. However, the quality adjustments in widespread use in the USA can probably address questions of workload and of possible adjustments to the values obtained in more detail than an organizational analysis, as they focus solely on the issue of workload. An organizational analysis also tends to involve more work and expense than quality adjustments, but offers added value over and above the analysis of the workload. However, a weighted caseload study ideally should be part of a more comprehensive analysis of the organization concerned – and vice versa. In this respect, it is obvious to combine a weighted caseload study with an organizational analysis; a weighted caseload study itself only covers a specific part of the functioning of an organization.

What is now required – in particular as part of the project on "Basic Research into Court Management in Switzerland"48 – is to make a more thorough examination of these findings. In particular, clarification is needed as to whether the design of the organizational analysis should be changed to tailor it better to the needs of the workload assessment – and vice versa.

However, an important aspect of court management, which demonstrates both qualitative and quantitative elements, can neither be investigated with conventional workload assessments nor with the combination of a weighted caseload study and an organizational analysis: the issue of the length of judicial proceedings. Reaching a judgment within a reasonable time is one of the key indications of quality and performance in the justice system.49 Accordingly this aspect must be integrated into a combination of the weighted caseload study and the organizational analysis as part of the methodological development; it may be that further research will indicate a link between timeliness and the workload.

A greater challenge is to link findings from weighted caseload studies and organization analyses with the quality of the judgments or of the prosecution. Here again, there is a considerable need for further research.50

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47 See e.g. LIENHARD/KETTIGER/USTER/WINKLER (2015), p. 93.
48 See http://www.justizforschung.ch (accessed 01.06.2015).
49 See for example PALUMBO (2013), p. 9: "Also, as emphasised by the adage 'justice delayed is justice denied', timeliness is a prerequisite for achieving justice." See also the documents on judicial time management published by the SATURN Centre on the Website of the European Commission for the Efficiency of Justice (CEPEJ), http://www.coe.int/t/dghl/cooperation/cepej/Delais/default_en.asp (accessed 01.06.2015); VAN DUIZEND (2011).
50 On the required consideration of the quality of judiciary activity in performance assessments, see for example WALTER (2005), para. 27; TSCHÜMPERLIN (2003), p. 93.
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