Personnel Expenditure Efficiency as an Impact of Public Service Quality in Teacher Requirements Planning

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Abstract. In carrying out human resources planning, accurate calculations are needed so that the personnel expenditure burden is not too high in the regional revenue and expenditure budget (APBD). The current calculation of employee needs is based on the needs of teachers in each school, but it does not look at the community served, so the burden of personnel spending is very high. Elementary school teachers represent a high proportion of the personnel expenditure burden in the APBD. The aim of this study was to change the calculation of the need for elementary school teachers according to the concept of public service quality. This involved calculating the number of children aged 7-12 years as the community being served, the ideal number of students in one class, and the number of elementary school teachers who are associated with the average annual income of personnel. Quantitative methods were used with a descriptive analysis approach. This research was conducted from January to August 2021. The results indicated that using the concept of public service quality for these calculations can increase the efficiency of the budget in the APBD.

Keywords: hr planning, calculation of elementary school teacher needs, public service quality, personnel expenditure, APBD

1. Introduction

Bureaucratic reform continues to be the government’s goal in the governance system. The flow of decision-making is trimmed so that bureaucratic reform and strengthening regional autonomy can be achieved more quickly. Fundamental reforms were carried out in the governance system regarding the institutional aspects (organization), management (business processes), and apparatus resources. The implementation of bureaucratic reform is expected to be able to build the state apparatus to increase professionalism and realize good governance at the centre and regions as mandated Undang-Undang Nomor 17 Tahun 2007 Tentang Rencana Pembangunan Jangka Panjang Nasional Tahun 2005-2055. (1) The reform of the apparatus resources in question must begin with reforming the apparatus resource planning system. This is related to the sustainability of a public organization in providing services to the community. Having qualified personnel resources is an investment for the organization. An organization
can progress, survive and develop if it is supported by adequate employees both in quantity and quality.

Renewal of the government administration system in the aspect of apparatus resources requires good planning to get a professional and dignified apparatus. In Undang-Undang Nomor 5 Tahun 2014 Tentang Aparatur Sipil Negara (UU ASN) it is stated that the construction of the state civil apparatus (ASN) aims to carry out the ideals of the nation and realize the goals of the state. (2) ASN must be able to provide public services for the community and carry out the role as an element of the glue of national unity based on Pancasila and the 1945 Constitution of the Republic of Indonesia.

The role of ASN as a public servant for the community needs to be supported by the right concept of public service to achieve the highest level of satisfaction and public welfare. Providing quality public services is considered an important factor for the competitive development and growth of “country systems (national economy, social and industrial systems)” (Alberto, 2013; Rapcevičienė, 2014). (3) (4) Service is said to be of high quality or satisfactory if the service can meet the needs and expectations of the community (Nurdin, 2019; Hardiyansyah, 2018). (5) (6) Public services provided by ASN can be maximized if the ratio of the number of ASN as service providers is by the number of customers served as beneficiaries of the service. The ASN Law states that ASN consists of Civil Servants (PNS) and Government Employees with Work Agreements (PPPK) who carry out their duties as public servants either directly or indirectly.

The number of civil servants in Indonesia as of December 2020 was 4,168,118, with 36% of teachers or 1,418,266 people (dominated by 56% of elementary school teachers) (Kedeputian Bidang Sistem Informasi Kepegawaian, 2020). (7) Although the number of teachers is quite large compared to the number of civil servants as a whole, in reality, some opinions state that Indonesia is still experiencing a shortage of teachers. Minister of Education, Culture, Research, and Technology, Nadiem Makarim, said the need for teachers is 2.2 million teachers to meet 300,000 formal education units, while the number of ASN teachers currently available is 1.3 million people (Yulianto, 2021). (8) The Secretary-General of Teachers and Education Personnel of the Ministry of Education and Culture, Nunuk Suryani, said that currently, the number of teacher shortages is as many as 1.1 million teachers with 742 thousand positions already filled by honorary teachers and the 2020 PPPK is 84 thousand. Thus, there is still a shortage of around 275,000 teachers (Suryani, 2021). (9)

The urgency of the accuracy of calculating the number of teacher needs requires more attention so that the education services provided to the community are more optimal. The accuracy of calculating the number of teacher needs is also related to the personnel expenditure budget that must be issued by the government to pay Civil Servants (PNS) every year so that it does not become a high burden on the personnel expenditure.
budget because currently, the composition of personnel expenditure is 35.6 percent of the total revenue budget, and regional expenditures (APBD) (Direktorat Jenderal Perimbangan Keuangan, 2018). (10) (11)

In carrying out their duties and functions, government officials must be responsive to changes that occur at any time in the community, nation, and state. Each apparatus needs to be aware of the goals of the state and be aware of the parties who need services by their respective duties and functions. To get a professional and dignified government apparatus, a mature apparatus resource planning system is needed. Apparatus resource planning must have goals that are based on the interests of the community because it is the core of Human Resource Management which will be used as a standard document for recruiting and structuring the composition of resources within the organization and making it easier for an organization to determine the direction of its goals.

To carry out the planning of apparatus resources by real needs, it is necessary to calculate the needs of civil servants based on the role of public service or public service quality (PSQ). The current calculation of the need for civil servants still considers the dynamics/development of the organization of the Ministry/Agency so that it can be said that the fulfillment and calculation of the needs of civil servants are based on the existing organization not based on the number of customers or the people served, so that it has an impact on the inefficiency of the personnel budget. Recalculation of the number of primary school teacher needs based on the number of communities served is expected to have a fiscal impact on the efficiency of the personnel budget in the APBD. It is necessary to accurately calculate the number of elementary school teacher needs based on the concept of public service quality to obtain efficiency figures for the personnel budget in the composition of the APBD. Therefore, the question in this study is how to calculate the needs of elementary school teachers and their impact on the personnel budget based on the concept of public service quality?

In calculating the needs of elementary school teachers using the concept of public service quality, some parameters are used as a reference for the calculation, namely:

1. The number of students in public elementary schools, obtained from the reduction in the number of residents aged 7-12 years (final data 2019, obtained from http://apkapm.data.kemdikbud.go.id) and the number of students in private elementary schools (obtained from http://statistik.data.kemdikbud.go.id for elementary school level).

2. The actual student-teacher ratio. This data is obtained from the calculation of the number of students in public elementary schools divided by the number of actual
study groups. The teacher-student comparison data provides an overview of the number of students in each study group.

3. The number of PNS teachers and the number of non-PNS teachers. Both of these data are included by seeing that there are PNS teachers who also teach in private elementary schools and non-PNS teachers who teach in public elementary schools. This data is taken from the Basic Education Data of the Ministry of Education and Culture.

4. Retirement of civil servant educators. The data listed are PNS educators who reach the retirement age limit in 2021. This data is obtained from the National Civil Service Agency’s Civil Service Application System data.

5. Total teachers. This data is obtained from the number of PNS teachers and non-PNS teachers minus the number of retired PNS educators.

6. Teacher needs and strengths/weaknesses in a ratio of 1:20, 1:24, 1:28. In Peraturan Menteri Pendidikan Dan Kebudayaan Republik Indonesia Nomor 17 Tahun 2017 Tentang Penerimaan Peserta Didik Baru Pada Taman Kanak-Kanak, Sekolah Dasar, Sekolah Menengah Pertama, Sekolah Menengah Atas, Sekolah Menengah Kejuruan, Atau Bentuk Lain Yang Sederajat It is explained that the number of study groups in elementary schools is a minimum of six and a maximum of 24 and each level is a maximum of 4 (four) study groups. (12) Meanwhile, the number of students in a study group for elementary schools is at least 20 students and at most 28 students in one class. The calculation basis with a ratio of 1:28 is taken from the highest point between the minimum and the maximum number of students in one class.

7. The number of teacher needs is calculated from the number of public students divided by the ratio (20, 24, and 28) while the number of shortages or excess teachers is obtained from the calculation of the number of study groups minus the total number of teachers.

In Indonesia, the concept of public service is explained in Undang-Undang Republik Indonesia Nomor 25 Tahun 2009 Tentang Pelayanan Publik as an activity or series of activities in the context of fulfilling service needs by the laws and regulations for every citizen and resident of goods, services, and/or administrative services provided by public service providers. (13) Public services are provided by public service providers, which include every state administrative institution, corporation, independent institution established under the Act for public service activities, and other legal entities formed solely for public activities. Public services are carried out by officials, employees, officers, and everyone who works in the organizing organization in charge of carrying out an
The concept of public service in Law Number 25 of 2009 is slightly different from that described by (Rhee & Rha, 2009) regarding the service delivery chain in the concept of Public Service Quality. In this concept, the government as a policymaker is tasked with providing services to the community. Government tends to delegate the implementation of services to non-government agencies, both for-profit and non-profit. Government is responsible for providing public services while service agencies play a direct role in the delivery of services to final customers. The government should pay more attention to the quality problems that occur in the total value chain of public services. To improve the quality of public services and increase customer satisfaction, the government distinguishes final customers from intermediary customers in the service value chain.

There are four main dimensions of public service, namely design quality, process quality, result quality, and relationship quality. The main attributes of public service quality for customer satisfaction vary based on the types of customers in the public sector. Intermediary customers, emphasizing the quality of design and relationship of the services provided by the government. While final customers as beneficiaries of public services, place the greatest importance on the quality of the process and results of the services received (Rhee & Rha, 2009).

There is a shift in the concept of public service that occurs when this concept is applied in Indonesia. Service provider institutions that have been serving as service providers and overseeing service implementers have shifted to become policymakers regarding services carried out by ASN. Meanwhile, ASNs who have a direct role in the delivery of services to the community become intermediary customers for the government. The community as the final customer who emphasizes the quality of the process and the results of the service must be the main concern of the government in designing service policies that will be carried out by intermediary customers. The government no longer focuses on organizations as providers and implementers of public services but focuses on the community as beneficiaries of services provided by intermediary customers. The application of the service delivery chain concept in Indonesia can
prevent the occurrence of organizational ballooning as a form of bureaucratic pathology. Organizational inflation has so far occurred because of the large size by enlarging the structure and recruiting more members, which has an effect on the authority possessed by bureaucratic leaders and the number of financial resources controlled. (Purwanto et al., 2016). (16)

Personnel expenditure is compensation in the form of money or goods given to civil servants, state officials, and retirees and honorary employees who will be appointed as employees of the scope of government both on duty at home and abroad in return for work that has been carried out in order to support the task and functions of government organizational units (Peraturan Menteri Keuangan Nomor 101/PMK.02/2011 Tentang Klasifikasi Anggaran). (17) The ratio of personnel expenditures can be used to measure the portion of personnel expenditures to total regional expenditures. The improvement in the quality of regional expenditures can be seen from the decreasing portion of personnel expenditures in the APBD. The smaller the portion of APBD expenditure used for apparatus expenditure, the APBD can be optimized to support other types of spending that are more related to public services, such as capital expenditures for the construction of community facilities or to support effective spending to encourage the wheels of the regional economy, such as increasing connectivity with the construction of new roads and bridges. (Direktorat Jenderal Perimbangan Keuangan, 2017). Efficiency in the management of regional revenue and expenditure budgets (APBD) is needed to provide a multiplier effect for the welfare of the community.

2. Methods

Quantitative methods are used in this study by processing secondary data obtained from several sources and analyzed descriptively. The parameters for calculating the needs of elementary school teachers are a) Number of students receiving services; b) The ideal number of students in one class; c) The current number of Teachers. Therefore, the formula for calculating teachers in one public elementary school is:

\[ KG = (M/R) - G \]

KG: Teacher Needs
M: Student
R: Ideal Number of Students in One Class
G: Current Number of Teachers

The efficiency of the personnel expenditure budget is carried out by calculating ideally the number of primary school teacher needs minus the number of civil servants
in each province. The results of the excess or shortage of teachers are multiplied by the average annual income of civil servants.

To calculate the average annual income of civil servants in each province, it is obtained from the calculation:

\[
\text{realisasi anggaran belanja pegawai tahun 2020} \\
\text{jumlah PNS provinsi}
\]

The formula for the efficiency of the personnel budget:

\[
(\text{Number of Civil Servants} - \text{Number of Needs for Elementary School Teachers}) \times \text{Average Income per PNS per Year}
\]

The personnel budget data was obtained from the 2020 Regional Revenue and Expenditure Budget Data from the Directorate General of Fiscal Balance, Ministry of Finance, while data on the number of civil servants in all provinces were obtained from the Deputy for Personnel Information Systems (2020). The average annual income of civil servants is calculated by ignoring the differences in salary by class and teacher certification allowances to provide an overview of the annual income of each civil servant.

**3. Results and Discussion**

This study will be explained how to calculate teacher needs by taking a public service quality approach and also calculating the efficiency of personnel spending based on per capita income in each province based on gross regional domestic income at constant base prices in 2020.

1. **Calculation of Elementary School Teacher Needs**

The calculation of the number of primary school teachers needs so far is based on the number of public elementary schools in an area, not on the number of people who are elementary school aged or aged 7-12 years. Currently, the need for teachers in each elementary school is a minimum of 8 teachers, while the need for teachers in each region is considered still lacking because this is in line with the need for teachers of 1 million teachers. The minimum and the maximum number of students in one study group at each level have changed. When referring to the Regulation of the Minister of Education and Culture Number 17 of 2017 concerning, the number of students in one elementary school learning group in one class is at least 20 students and a maximum of 28 participants. However, in the latest regulation, namely the Minister of Education and Culture Regulation Number 1 of 2021, the number of students in one study group is not explained. The number of study groups used is the number of study groups contained in the Primary Education Data of the Ministry of Education, Culture, Research, and
Technology, which means that there are differences in the number of students in each study group in each province.

The number of public elementary school students become customers of public services provided by teachers. There are 24,497,796 public elementary school students throughout Indonesia. This figure is obtained from the total population aged 7-12 years minus the number of private elementary school students. This data does not take into account the number of people aged 7-12 years who are not in school and drop out of school as a deduction. When viewed from the largest and smallest numbers, it can be seen that the largest number of public elementary school students is in West Java (4,266,597), East Java (3,285,596), and Central Java (3,213,486) while the smallest is in North Kalimantan (49,260), West Papua (84,969) and Gorontalo (119,984).

Elementary school teachers throughout Indonesia are 876,324 people, which is obtained from the calculation of the number of PNS teachers (579,068 people) plus the number of Non-PNS teachers (359,818) minus teachers retiring in 2021 (62,562 people). The largest distribution of primary school teachers is in Java, namely West Java, East Java, and Central Java. While the smallest is in West Papua, North Kalimantan, and Gorontalo.

The number of teacher needs will be different if it is based on the concept of Public Service Quality (Rhee & Rha, 2009) where the number of teacher needs is by the number of customers served. The elementary school level consists of students with an age range of 7-12 years. Thus, the number of primary school teachers needed can be obtained by dividing the number of public elementary school teachers divided by the total population aged 7-12 years.

Referring to the Regulation of the Minister of Education and Culture Number 17 of 2017, the minimum number of students per group for elementary school education units is 20 people and the maximum number of students per group is 28 people. In this paper, the researcher used 28 students per class. The basis of this regulation is used to generalize the standard for calculating the number of customers served by primary school teachers in every province in Indonesia. Then the formula for calculating the number of teacher needs is:

$$KG = \frac{M}{R} - G$$

KG: Teacher Needs
M: Student
R: Ideal Number of Students in One Class
G: Current Number of Teachers
### Table 1: Table for calculating the number of elementary school teachers

| No | province       | Number of State Elementary School Students | Number of Study Groups | Current Number of Teachers (2020) | Teacher Needs | Surplus / Shortage of Teachers |
|----|----------------|---------------------------------------------|------------------------|-----------------------------------|---------------|--------------------------------|
|    |                | civil servant                              | Non servant            | Teacher Retirement | Total Teachers (6+7-8) | Ratio 1:28 | current | Ideal |
| 1  | Aceh           | 17.270                                      | 9.438                  | 1.625               | 25.083                  | 210.18    | -1.668 | -4.065 |
| 2  | Sumatera Utara| 3.567                                       | 23.785                 | 4.176               | 56.726                  | 51.658    | 5.156  | -4.518 |
| 3  | Sumatera Barat | 19.134                                      | 9.100                  | 1.596               | 26.638                  | 20.378    | 1.846  | -6.260 |
| 4  | Riau           | 18.003                                      | 11.374                 | 1.082               | 28.295                  | 24.268    | 748    | -4.027 |
| 5  | Jambi          | 10.902                                      | 6.066                  | 1.076               | 15.892                  | 13.119    | 1.502  | -2.773 |
| 6  | Sumatera Selatan | 22.688                                   | 13.406                 | 1.669               | 34.425                  | 31.463    | 1532   | -2.962 |
| 7  | Bengkulu       | 6.582                                       | 3.058                  | 548                 | 9.092                   | 7140      | 582    | -1.952 |
| 8  | Lampung        | 21.278                                      | 13.303                 | 2.171               | 32.410                  | 31039     | 2444   | -1.371 |
| 9  | Bangka Belitung| 4.632                                       | 1.343                  | 328                 | 5.647                   | 5193      | 488    | -454  |
| 10 | Kep. Riau      | 4.209                                       | 2.473                  | 180                 | 6.502                   | 6619      | 176    | 17    |
| 11 | DKI Jakarta    | 13.537                                      | 5.155                  | 2.325               | 16.367                  | 24037     | 2799   | 7.676  |
| 12 | Jawa Barat     | 73.292                                      | 58.983                 | 9.293               | 122.982                 | 152.378   | 19.756 | 29.396 |
| 13 | Jawa Tengah    | 66.957                                      | 42.447                 | 9.843               | 99.561                  | 114.767   | 16.396 | 15.206 |
| 14 | DI Yogyakarta  | 7.285                                       | 2.644                  | 1.176               | 8.753                   | 8249      | 1314   | -5.04  |
| 15 | Jawa Timur     | 71.399                                      | 43.954                 | 10.675              | 104.618                 | 117.343   | 14.208 | 12.725 |
| 16 | Banten         | 19.669                                      | 14.081                 | 1.424               | 32.326                  | 42156     | 2958   | 9.830  |
| 17 | Bali           | 9.399                                       | 5.621                  | 1.641               | 13.379                  | 13527     | 1247   | 148    |
| 18 | NTB            | 12.308                                      | 10.906                 | 1.369               | 21.845                  | 20278     | 603    | -1.568 |
| 19 | NTT            | 13.770                                      | 10.056                 | 1.226               | 22.600                  | 15825     | 965    | -6.775 |
| 20 | Kalimantan Barat | 15.174                                  | 8.921                  | 1.145               | 22.950                  | 19385     | 5619   | -3.565 |
| 21 | Kalimantan Tengah | 11.406                                  | 3.770                  | 531                 | 14.645                  | 9521      | 1115   | -5.124 |
| 22 | Kalimantan Selatan | 12.963                                 | 6.126                  | 944                 | 18.145                  | 14755     | 1269   | -3.390 |
| 23 | Kalimantan Timur | 10.094                                  | 5.294                  | 600                 | 14.788                  | 13093     | 692    | -1.695 |
| 24 | Kalimantan Utara | 2.583                                  | 1.104                  | 107                 | 3.580                   | 1759      | 18     | -1.821 |
| 25 | Sulawesi Utara | 8.881                                       | 2.599                  | 674                 | 7806                    | 5390      | 964    | -2.416 |
| 26 | Sulawesi Tengah | 10.989                                  | 5.663                  | 577                 | 16.075                  | 1122      | 1181   | -4.953 |
| 27 | Sulawesi Selatan | 26.039                                  | 17.978                 | 2.429               | 41.588                  | 32746     | 1548   | -8.842 |
| 28 | Sulawesi Tenggara | 5.985                                  | 6.218                  | 655                 | 15.148                  | 1121      | 486    | -3.937 |
| 29 | Gorontalo      | 5.322                                       | 2.154                  | 245                 | 5.431                   | 4285      | 509    | -1.146 |
| 30 | Sulawesi Barat | 4.723                                       | 3.732                  | 265                 | 8.190                   | 5963      | 499    | -2.227 |
| 31 | Maluku         | 6.727                                       | 1.605                  | 481                 | 7.851                   | 6390      | 470    | -1.461 |
| 32 | Maluku Utara  | 4.459                                       | 2.083                  | 163                 | 6.379                   | 4601      | 680    | -1.778 |
| 33 | Papua          | 4.276                                       | 3.623                  | 223                 | 7.686                   | 1121      | 2941   | 3.525  |
| 34 | Papua Barat    | 4.826                                       | 1.745                  | 100                 | 3.471                   | 3035      | 1131   | -436  |
|    | Jumlah         | 24.497.796                                 | 579.068                | 62.562              | 876.324                 | 874.922   | 91889  | -1.403 |
Based on the data above, it can be seen that the overall number of primary school teachers in Indonesia has an excess of 1,403 teachers from the number of existing teachers, both civil servants and non-civil servants, and minus the number of teachers who will retire. However, several provinces lack teachers, namely in West Java Province as many as 29,396 teachers, Central Java as many as 15,206 teachers, East Java Province as many as 12,725 teachers, Banten Province as many as 9,830 teachers, DKI Jakarta Province as many as 7,670 teachers, Papua Province as many as 3,525 teachers, and Bali as many as 148 teachers, and Riau Islands Province as many as 117 teachers.

The number of teacher shortages on the island of Java is due to a large number of elementary school-age children, namely 6-12 years, which is not proportional to the number of existing teacher needs, although on the island of Java many children attend private schools. For the number of teacher shortages outside Java, in addition to the number of elementary school-age children who are not proportional to the number of teacher needs, there is a geographical factor, namely mountainous areas so that not many teachers want to teach in areas that are difficult to reach.

1. The Efficiency of the Personnel Expenditure Budget in the 2020 APBD

In the bureaucratic business process, personnel expenditure is one of the components of the Regional Revenue and Expenditure Budget which is allocated to pay civil servants. It should be noted that in managing the APBD, government agencies must be able to minimize the use of things that are less accurate, less effective, and inefficient. This is intended so that the proportion of the APBD does not only focus on personnel expenditures, but can also be allocated for other budget items such as education, health, and the development of other public facilities and infrastructure. The Personnel Expenditure Budget should be able to provide a large multiplier effect in encouraging people’s welfare. As directed by the president, the State Civil Apparatus (ASN) should deliver, not just send. Therefore, it can be said that the acceptance received by ASN encourages ASN to work actively in the prosperity and welfare of the community. To get a real picture, researchers collected 2020 APBD data which focused on total APBD data and also personnel expenditures to find out the average PNS income for each personnel. Based on this figure, the agency can calculate the loss of recruiting ASN that does not have an effect on welfare and prosperity for the community.

There is no statutory regulation that regulates the highest limit for the personnel budget in the APBD. However, the ratio of personnel expenditures can be used to measure the share of personnel expenditures to total regional expenditures. The improvement in the quality of regional expenditures can be seen from the decreasing portion of
personnel expenditures in the APBD. The smaller the portion of APBD expenditure used for apparatus expenditure, the APBD can be optimized to support other types of spending that are more related to public services such as capital expenditures for the construction of community facilities or to support effective spending to encourage the wheels of the regional economy, such as increasing connectivity with the construction of roads and bridges. (Ministry of Finance, 2017). The personnel expenditure ratio is also one of the concerns in the allocation of determining the need for Candidates for Civil Servants for Regional Agencies as regulated in the Regulation of the Minister for Empowerment of State Apparatus and Bureaucratic Reform of the Republic of Indonesia Number 23 of 2019 concerning Criteria for Determining the Needs of Civil Servants and Implementation of Selection of Prospective Employees Civil Service in 2019.

It was stated in the mass media that the Minister of Finance, Sri Mulyani, found that regional spending was inefficient in the APBD of up to 75 percent which was spent on salary and operational expenditures (www.money.kompas.com, 2019). This inefficiency has an impact on the less than optimal regional development. In other words, the APBD, which should be beneficial to the whole community, is the majority of the benefits are still felt by civil servants.

Based on the data between the number of excess teachers and the budget, each province can do efficiently by reducing the number of civil servants in the province with the ideal number of teachers by the concept of public service quality. The calculation of efficiency in each province can also be applied as a whole so that it can be seen globally how efficient the personnel expenditure budget is. The transfer of the personnel budget to other budgets that can provide welfare for the community in general.

From the calculation of the efficiency of personnel expenditures using the simple calculation formula above, each year, the efficiency of the personnel expenditure budget of 77 trillion or 25% of the total APBD of 311 trillion can be carried out. This efficiency can be used by the government for other needs that can benefit society in general. The greatest efficiency is carried out by the DKI Jakarta Province, although there is still fulfillment of the needs of elementary school teachers because there is a shortage of teachers, if you use a public service quality approach, it is 15,214,076,000. Likewise, the Province of West Java can make personnel expenditure budget efficient even though there is still the fulfillment of the needs of primary school teachers of 10,544,859,000. And the province of East Java can also implement the efficiency of the personnel expenditure budget although there is still a fulfillment of the needs of primary school teachers amounting to 8,337,971,000. The three provinces, although there is still a shortage of elementary school teachers, are still able to make personnel expenditures
| No | Provincial Government | Number of civil servants | Teacher's Advantages | Total Budget Realization | Average Budget per PNS Per Year | Efficiency |
|----|-----------------------|--------------------------|----------------------|-------------------------|--------------------------------|-------------|
| 1  | Aceh                  | 21,894                   | 4,065                | 12,091,507              | 110,070,000                     | 1,962,437,000 |
| 2  | Sumatera Utara        | 26,293                   | 4,518                | 12,020,893              | 123,936,000                     | 2,698,707,000 |
| 3  | Sumatera Barat        | 19,425                   | 6,260                | 6,443,653               | 105,681,000                     | 1,391,292,000 |
| 4  | Riau                  | 15,479                   | 4,027                | 7,840,141               | 139,096,000                     | 1,592,926,000 |
| 5  | Jambi                 | 11,082                   | 2,773                | 4,543,951               | 120,361,000                     | 1,000,081,000 |
| 6  | Sumatera Selatan      | 14,955                   | 2,962                | 7,665,471               | 118,463,000                     | 1,420,724,000 |
| 7  | Bengkulu              | 10,393                   | 1,952                | 2,204,452               | 100,456,000                     | 847,950,000   |
| 8  | Lampung               | 16,076                   | 1,371                | 6,872,618               | 107,681,000                     | 1,583,447,000 |
| 9  | Kep. Bangka Belitung  | 5,494                    | 454                  | 2,553,934               | 136,044,000                     | 685,661,000   |
| 10 | Kepulauan Riau        | 5,179                    | -117                 | 3,833,037               | 162,102,000                     | 858,493,000   |
| 11 | Daerah Khusus Ibukota Jakarta | 63,123 | -7,670                 | 52,574,980              | 214,909,000                     | 15,214,076,000 |
| 12 | Jawa Barat            | 36,339                   | -29,396              | 37,672,384              | 160,415,000                     | 10,544,859,000 |
| 13 | Jawa Tengah           | 40,751                   | -15,206              | 22,979,089              | 132,456,000                     | 7,411,863,000 |
| 14 | Daerah D Yogyakarta   | 11,007                   | 504                  | 5,433,564               | 134,345,000                     | 1,411,027,000 |
| 15 | Jawa Timur            | 52,761                   | -12,725              | 32,286,178              | 127,324,000                     | 8,337,971,000 |
| 16 | Banten                | 9,936                    | -8,830               | 7,870,727               | 185,328,000                     | 3,663,191,000 |
| 17 | Bali                  | 11,337                   | -148                 | 6,018,886               | 138,729,000                     | 1,593,306,000 |
| 18 | Nusa Tenggara Barat  | 14,106                   | 1,568                | 5,117,679               | 98,821,000                      | 1,239,020,000 |
| 19 | Nusa Tenggara Timur  | 14,675                   | 6,775                | 5,043,373               | 97,162,000                      | 767,584,000   |
| 20 | Kalimantan Barat      | 10,850                   | 3,565                | 1,280,111               | 47,644,000                      | 346,867,000   |
| 21 | Kalimantan Tengah     | 10,025                   | 5,124                | 4,484,736               | 120,300,000                     | 589,590,000   |
| 22 | Kalimantan Selatan    | 11,053                   | 3,390                | 6,491,932               | 136,107,000                     | 1,042,991,000 |
| 23 | Kalimantan Timur      | 11,025                   | 1,695                | 8,870,115               | 151,316,000                     | 1,411,776,000 |
| 24 | Kalimantan Utara      | 4,106                    | 1,821                | 2,620,740               | 138,112,000                     | 315,585,000   |
| 25 | Sulawesi Utara        | 10,837                   | 2,416                | 3,927,999               | 109,821,000                     | 924,805,000   |
| 26 | Sulawesi Tengah       | 12,066                   | 4,953                | 3,679,464               | 100,093,000                     | 711,962,000   |
| 27 | Sulawesi Selatan      | 24,307                   | 8,842                | 8,979,295               | 124,498,000                     | 1,925,366,000 |
| 28 | Sulawesi Tenggara     | 13,374                   | 3,937                | 3,468,747               | 96,100,000                      | 906,896,000   |
| 29 | Gorontalo             | 5,593                    | 1,146                | 1,771,331               | 109,770,000                     | 488,146,000   |
| 30 | Sulawesi Barat        | 5,782                    | 2,227                | 2,013,131               | 91,067,000                      | 323,745,000   |
| 31 | Maluku                | 10,485                   | 1,461                | 2,267,973               | 81,142,000                      | 732,229,000   |
| 32 | Maluku Utara          | 7,430                    | 1,778                | 2,244,720               | 98,800,000                      | 558,417,000   |
| 33 | Papua Barat           | 5,466                    | -3,525               | 8,975,118               | 124,931,000                     | 1,123,255,000 |
| 34 | Papua                 | 13,214                   | 436                  | 9,310,843               | 113,025,000                     | 1,444,230,000 |
| 35 |                     | 555,918                  | 1,403                | 31,452,771              | 4,156,075,000                   | 77,070,476,000 |
efficient, this is because the original regional income is relatively high, so it is natural that they are still recruiting the needs of employees, especially elementary school teachers.

4. Conclusion

Based on the above analysis, the concept of public service quality can be used as a basis for calculating the needs of elementary school teachers. The data presented above shows that there is an excess of elementary school teachers, namely 1,403. However, for some areas, there are shortcomings, namely West Java, Central Java, East Java, Banten, Bali, and West Papua. The impact on the personnel expenditure budget is based on the concept of public service quality, namely that the efficiency of the budget is 77 trillion or 25% of the APBD of 311 trillion.

Therefore, the researcher advises that it is time to calculate the needs of employees, especially elementary school teachers, using public service quality, no longer on the need for organizations or schools, there are schools whose students are 7-12 years old by the regulations of the Ministry of Education and Culture. So that the inefficiency of the personnel expenditure budget in the APBD can be efficient and diverted to things that are more beneficial to the wider community. To be able to implement the above, the regulations related to calculating the needs of employees, especially elementary school teachers need to be changed and synchronized between laws and regulations. All of this is intended to create a prosperous community life by the mandate of the 1945 Constitution.

The calculation of the need for elementary school teachers can also be done to calculate the number of employee needs, both civil servants and government employees with work agreements. Likewise, the formula for calculating the efficiency of the teacher expenditure budget can also be used as a reference in implementing the efficiency of the personnel budget in the APBD or APBN. This is because the purpose of this calculation does not cover only one position but can be adapted to all positions of the State civil apparatus.

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