

ISRG Journal of Arts, Humanities and Social Sciences (ISRGJAHSS)



ISRG PUBLISHERS

Abbreviated Key Title: ISRG J Arts Humanit Soc Sci

ISSN: 2583-7672 (Online)

Journal homepage: <https://isrgpublishers.com/isrgjahss>

Volume – IV Issue - V (September-October) 2026

Frequency: Bimonthly



Inequality in Human Resource Distribution within Public Organizations: A Full-Time Equivalent Approach at the Bojonegoro Regency Bawaslu Secretariat

Moch Zaenuri^{1*}, Siti Lailatus Sofiyah², Hardiono Hardiono³, Erlyna Hidyantari⁴

¹ Master of Public Administration study Program, Faculty of Social and Political Science, WR Supratman Surabaya University, Indonesia

^{2, 3, 4} Faculty of Social Science, WR Supratman Surabaya University, Indonesia

| **Received:** 10.09.2026 | **Accepted:** 15.09.2026 | **Published:** 22.09.2026

***Corresponding author:** Moch Zaenuri

Abstract

This study aims to analyze inequality in human resource distribution within public organizations using the Full-Time Equivalent (FTE) approach at the Secretariat of the General Elections Supervisory Agency (Bawaslu) of Bojonegoro Regency. The study employs a quantitative descriptive approach to measure the actual workload of personnel based on work activities and the time required to complete tasks annually. FTE values are calculated by comparing total annual workload with annual effective working time of 1,250 hours. The results indicate substantial differences in workload among positions, reflecting inequality in human resource distribution. The highest FTE values were 4.34, 3.35, 3.35, 1.97, and 1.91, indicating excessive workloads (overload) and an imbalance between workload and available human resources. Meanwhile, several positions had FTE values within or close to the normal range, indicating relatively balanced workloads. These findings demonstrate that human resource inequality is influenced not only by the number of personnel but also by the uneven distribution of workload across organizational positions. The FTE approach provides an objective basis for identifying workload disparities and determining appropriate human resource allocation. Optimization can be achieved through task redistribution, functional realignment, staffing adjustments, and periodic workload evaluation. The study confirms that FTE analysis can support more equitable, effective, and efficient human resource distribution in public organizations.

Keywords: Human Resource Inequality; Workload; Full-Time Equivalent; Public Organization

Introduction

Human resources constitute a key element in determining an organization's ability to achieve its goals effectively and efficiently. In public sector organizations, staffing involves more than just the number of available personnel; it also entails aligning staff numbers with workload volume, completion times, task complexity, and the distribution of work across units. A staffing level deemed administratively sufficient does not necessarily indicate that workforce needs have been optimally met. A mismatch between job demands and workforce capacity can lead to workload imbalances, where some employees are overburdened while others possess underutilized capacity (Bakhtiar et al., 2021; Muchlisin, 2021; Tridoyo & Sriyanto, 2014).

Workload analysis serves as a crucial instrument in human resource planning, as it provides information on the relationship between required tasks and available workforce capacity. Such analysis can be used to determine staffing requirements, identify workload imbalances, and provide a basis for redistributing work. Research by Bakhtiar et al. (2021) demonstrates that the number of available employees does not always reflect effective workforce utilization, as workload mismatches can occur between positions. Similar findings were reported by Hudaningsih and Prayoga (2019), who utilized Full-Time Equivalent (FTE) analysis to determine staffing needs based on actual workloads.

The nature of work within public sector organizations further underscores the need for workload-based analysis. Some tasks are routine and administrative, whereas others are substantive, dynamic, and influenced by shifting organizational agendas. These differences mean that the time required to perform various roles is not uniform. Consequently, human resource planning cannot rely solely on headcount or organizational structure; it must also take into account actual work requirements (Handoko & Sunardi, 2020; Zainal & Ramadhanti, 2019).

One quantitative approach used to measure workforce requirements is Full-Time Equivalent (FTE). FTE is a time-based workload analysis method that compares the total time required to complete tasks with the available effective working time. The results of this measurement can be used to determine workforce utilization levels and human resource capacity needs within a work unit (Muchlisin, 2021; Matiro et al., 2021; Wicaksono & Fadillah, 2021).

The FTE approach has been applied across various types of organizations. Tridoyo and Sriyanto (2014), for instance, demonstrated that FTE could be used to identify mismatches between workload and staffing levels. Their study identified employees experiencing underload, appropriate workload, and overload conditions, indicating that FTE calculations could serve as a basis for adjusting workforce composition. Similar results were reported by Adi and Rusindiyanto (2020) at PT Bank Jatim, where FTE was used to determine teller staffing requirements based on actual workload.

Research by Kurniawan et al. (2022) also showed that FTE could be used to identify workload imbalances between units. Their findings revealed the existence of units with excessive workloads alongside units with normal workloads, necessitating workforce adjustments to achieve balance. Kanya (2023) likewise identified workload imbalances across several units and utilized FTE results to determine more optimal staffing requirements.

The FTE approach is also relevant for public sector organizations. Handoko and Sunardi (2020) employed FTE for workload-based staffing planning at the Regional Financial and Tax Management Agency. Meanwhile, Injavira and Hasanah (2022) applied FTE to analyze employee workloads at the Population and Civil Registration Agency. At the national public institution level, Prasetyo et al. (2023) applied FTE within the Human Resource Management Directorate of the Financial Services Authority (OJK), demonstrating that the method could be used to calculate staffing needs based on actual workload.

Workload issues are particularly relevant to organizations that support the conduct of elections. The General Election Supervisory Body (Bawaslu) plays a strategic role in preventing and supervising the implementation of elections, as well as addressing various issues that arise during the different stages of the electoral process. Fulfilling these functions requires support in areas such as administration, legal affairs, data and information management, public relations, violation handling, the resolution of election process disputes, and supervision. Differences in the nature and volume of work across these functions can lead to varying human resource capacity requirements.

Workload in election administration is also dynamic in nature. Febriansyah and Husnayanti (2019) found that the workload of the Voting Organizing Group (KPPS) during the 2019 simultaneous elections fell into the "overload" category. These findings indicate that election-related activities can generate high work demands during specific periods; therefore, human resource planning must take into account the nature of the work and the dynamics of the election stages.

The Secretariat of Bawaslu Bojonegoro Regency serves as a support unit for the institution's operations. During the study period, staff members were distributed across several key functions: the Administration Sub-division; the Election Supervision Sub-division; the Violation Handling and Election Process Dispute Resolution (PPSP) Sub-division; and the Legal, Public Relations, Data, and Information Sub-division. Variations in staffing levels and the nature of work across these functions raise the question of whether the distribution of available human resources aligns with actual workloads.

A larger number of employees in a unit does not necessarily indicate that the unit possesses excess workforce capacity. Conversely, a unit with fewer employees may have higher workforce requirements if the volume and time demands of the work to be completed are greater. Dewi and Al-Ghofari (2020) demonstrated that the performance of multiple, concurrent roles can result in high FTE values, indicating a need for additional personnel. Such conditions highlight the importance of measuring workload at the job position or individual level.

Numerous prior studies have utilized the FTE method across various organizational contexts, including the manufacturing, service, banking, telecommunications, government, and public sectors (Bakhtiar et al., 2021; Kurniawan et al., 2022; Sari et al., 2022; Wibisono & Herwanto, 2023). However, research specifically mapping individual workload imbalances and human resource distribution within the secretariats of district-level election oversight bodies remains limited. While Febriansyah and Husnayanti (2019) employed the FTE method in the context of election administration, their study focused on the Polling Station

Working Committee (KPPS) at the polling station level rather than the secretariat of an election oversight body.

This study focuses primarily on workload distribution imbalances. The analysis extends beyond the sub-division level to examine workloads at the job position and individual levels. This approach enables the organization to identify functions with high capacity requirements as well as sections with relatively more available capacity. The findings can serve as a basis for redistributing tasks, restructuring functions, or adjusting workforce requirements.

Against this backdrop, this study aims to analyze employee workload distribution at the Secretariat of the Bojonegoro District Election Supervisory Body (Bawaslu) using the Full Time Equivalent (FTE) method and to identify the implications for human resource management and allocation within public organizations.

Research Methodology

This study employs a quantitative descriptive approach, supplemented by qualitative data, to analyze human resource requirements based on workload at the Secretariat of the Bojonegoro Regency General Election Supervisory Agency (Bawaslu). The quantitative approach is used to measure workload magnitude and staffing needs via the Full-Time Equivalent (FTE) method, while qualitative data serves to provide insight into task execution, work distribution, and the actual state of human resources within each division. Time-based approaches such as FTE have been utilized in various workload analysis studies to link task completion time with staffing requirements (Matiro et al., 2021; Muchlisin, 2021; Kurniawan et al., 2022).

The research was conducted at the Bawaslu Bojonegoro Regency Secretariat, with the units of analysis comprising the job positions and work functions defined within the secretariat's organizational structure. The analysis focused on the work activities performed by employees across the various work units.

The research data consists of both primary and secondary data. Primary data was obtained through observations of work execution and interviews with structural officials and employees familiar with the work processes in each division. Interviews were used to gather information regarding activity types, task frequency, completion duration, implementation periods, and the actual distribution of tasks.

Secondary data were obtained from organizational documents, descriptions of duties and functions, organizational structures, personnel data, activity implementation records, and other documents related to workload and human resource requirements. Data regarding activities, frequency, completion time, and staffing levels constitute key components of the FTE analysis, consistent with the approaches used by Bakhtiar et al. (2021), Hudaningsih and Prayoga (2019), and Wicaksono and Fadillah (2021).

Data collection was conducted through observation, interviews, and document review. Observation was used to gain insight into actual work activities and task completion processes. Interviews were conducted in a structured manner with informants possessing knowledge and experience regarding work execution within the studied units. Document review served to supplement information gathered from observations and interviews, particularly concerning activity volume, work frequency, staffing levels, and job descriptions for each position.

The collected data were then organized by position, activity type, work frequency, completion duration, and activity implementation period. Total work time was calculated by multiplying the frequency of activities by the time required to complete them. The durations of all activities were then aggregated to determine the total annual workload.

Workload analysis is conducted by comparing the total annual workload with the annual effective working time. This approach represents the fundamental FTE principle employed in various workload analysis studies (Tridoyo & Sriyanto, 2014; Muchlisin, 2021; Taufan et al., 2023).

The FTE formula used is:

$$\text{FTE} = \text{Total Annual Workload} / \text{Annual Effective Working Time}$$

In this study, the annual effective working time used as the basis for calculation is 1,250 hours per year. The FTE value is used to indicate the required workforce capacity based on the workload to be completed.

An FTE value close to 1.00 indicates that the workload requirement roughly aligns with the capacity of a single full-time employee. Higher FTE values indicate a greater need for workforce capacity. Conversely, lower FTE values indicate that the workload is relatively small compared to the available effective working time capacity. This interpretation aligns with the application of FTE in studies by Muchlisin (2021), Kurniawan et al. (2022), and Kanya (2023).

The resulting FTE figures are subsequently used to map workload conditions across various positions and work units. This mapping is conducted by comparing the workforce capacity required by the workload against the number of available personnel. The analysis serves to identify imbalances in workforce distribution, such as instances of excessive workload pressure or underutilized capacity.

The analysis considers not only FTE values but also task characteristics, inter-positional relationships, job responsibilities, and competencies, as well as the need for continuity in administrative services and supervision. This approach is essential because decisions regarding human resource redistribution cannot be based solely on FTE figures without accounting for the nature of the work.

Quantitative workload data is cross-referenced with findings from observations, interviews, and organizational documents to ensure the calculated results accurately reflect actual working conditions. This process serves to verify the alignment between the mathematically calculated workload and the tasks actually performed within the Secretariat of the Bojonegoro Regency Bawaslu.

The research stages include identifying tasks and activities for each position; collecting data on work volume and duration; calculating total annual workload; determining effective working time; calculating FTE values; mapping workload conditions; analyzing the gap between workforce supply and demand; and formulating recommendations for human resource optimization. This approach aims to generate recommendations regarding task redistribution, functional restructuring, and adjustments to workforce requirements.

Results and Discussion

The research results indicate that human resource issues at the Bojonegoro Regency Bawaslu Secretariat are not merely a matter of the total number of available staff, but primarily stem from an imbalance in the distribution of human resources relative to the workload across different divisions. FTE measurement results reveal significant variations in work capacity requirements.

These findings demonstrate that the aggregate number of employees cannot serve as a sole indicator for determining human resource adequacy. Research by Zainal and Ramadhanti (2019) highlights the need for workforce planning to account for labor requirements based on workload, while Prasetyo et al. (2023) demonstrate that the FTE approach can be utilized to identify staffing needs within public organizations.

1. Workload Imbalance Between Departments

FTE measurement was conducted by comparing the total annual workload against an effective working time of 1,250 hours per year. The results indicate variations in workforce capacity requirements across different departments.

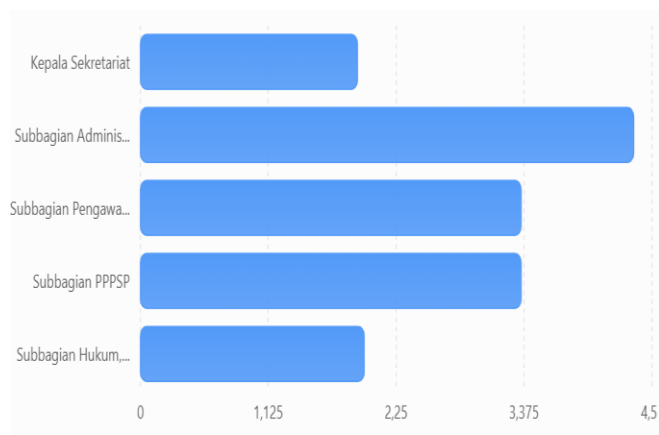


Figure 1. Comparison of FTE Values Across Sections of the Bojonegoro Regency Bawaslu Secretariat

Figure 1 illustrates significant variations in FTE values across the different sections. The highest value is observed in the Administration Sub-section (4.34), followed by the Election Supervision Sub-section (3.35) and the Sub-section for Handling Violations and Resolving Election Process Disputes (PPPSP) (3.35). Meanwhile, the Head of the Secretariat has an FTE value of 1.91, and the Legal, Public Relations, Data, and Information Sub-section has a value of 1.97.

This pattern indicates that the demand for manpower is concentrated in specific functions. For instance, the FTE value of 4.34 for the Administration Sub-section implies that the identified total workload is equivalent to approximately four times the effective working capacity of a single employee. This situation strongly suggests that the workload in this section is disproportionate to the available human resource capacity, assuming the work were distributed proportionally among the existing staff.

The FTE value of 3.35 for both the Election Supervision Sub-section and the PPPSP Sub-section also reflects a high workload burden. Both functions involve tasks directly related to election supervision, the handling of violations, and the resolution of election process disputes. The workload for these functions

fluctuates based on the intensity of the election stages and the dynamics of supervisory activities. Consequently, human resource requirements for these functions are determined not only by the volume of routine activities but also by the overall volume and complexity of the tasks that must be completed.

Conversely, the FTE value of 1.97 for the Legal, Public Relations, Data, and Information Sub-section indicates a lower capacity requirement compared to the three sections with the highest FTE values. While this figure still signifies a need for more than one employee's capacity, the workload pressure is relatively lower than that of the sections with FTE values exceeding 3.00. The Head of the Secretariat, with an FTE of 1.91, also faces a high workload, yet this figure remains below the FTE values of the three sections experiencing the heaviest workload pressures.i.

2. Uneven Distribution of Human Resources as an Organizational Issue

Imbalanced human resource distribution is a more complex issue than a mere shortage of personnel. Such imbalances arise when the distribution of workforce capacity does not align with the distribution of job demands.

If an organization relies solely on headcount for planning, the requirements of various units may appear relatively uniform. The FTE approach offers a different perspective, as workforce needs are determined by the total time required to complete tasks.

Two units with identical headcounts may have different staffing requirements if their work volumes and task durations differ. This highlights a key advantage of the workload-based approach over the headcount-based method.

Kurniawan et al. (2022) demonstrated that the FTE method can identify units with excessive workloads as well as those with normal workloads. Similarly, Kanya (2023) identified workload imbalances across several units, indicating a need to adjust staffing requirements.

Consequently, human resource planning at the Bojonegoro Regency Bawaslu Secretariat needs to shift from a headcount-based approach to a workload-based one. While a headcount-based orientation focuses on the number of employees, a workload-based approach centers on the relationship between the work itself and workforce capacity.

Prasetyo et al. (2023) provided empirical support for this approach in the public sector through a study conducted at the Financial Services Authority (OJK). Their findings indicate that FTE can be effectively used to determine staffing needs based on actual workloads.

3. Imbalance between Administrative and Technical Functions

The research results indicate that imbalances exist not only in technical supervisory functions but also in administrative functions. Notably, the Administration Sub-division recorded the highest FTE value at 4.34.

This finding is significant because administrative work is often viewed as a support function with a lighter workload compared to substantive functions. The results demonstrate that this assumption is not always accurate.

Administrative activities encompass financial management, correspondence, personnel management, documentation, reporting,

archiving, and operational support. The accumulation of these various activities can result in a heavy workload.

Research by Bakhtiar et al. (2021) demonstrates that FTE measurement can identify workload imbalances across different work units. These findings highlight the importance of quantitatively measuring all activities before determining workforce requirements.

High pressure is also evident in technical functions; both Election Supervision and PPPSP recorded FTE values of 3.35. These high values indicate that workforce capacity requirements for technical functions cannot be overlooked during human resource planning.

However, redistributing staff from administrative to technical functions cannot be done automatically. Differences in competencies, authority, responsibilities, and job characteristics must be taken into account. Thus, while FTE serves as a diagnostic basis, decisions regarding redistribution require broader organizational considerations.

4. Comparison with Previous Studies and Implications for HR Optimization

The findings of this study are consistent with previous FTE research showing that workload imbalance may occur simultaneously within an organization, with some positions experiencing overload while others remain normal. Muchlisin (2021) identified differences between overload and normal workloads, while Kanya (2023) and Kurniawan et al. (2022) found workload imbalances across organizational units. Sari et al. (2022) demonstrated that FTE can identify workforce imbalances that may affect overall work processes, while Adi and Rusindiyanto (2020) showed its usefulness in determining optimal workforce requirements. These findings reinforce that workforce needs vary according to the characteristics and workload of each function.

At the Bawaslu Secretariat of Bojonegoro Regency, the highest FTE was recorded in the Administration Subdivision (4.34), followed by Election Supervision and PPPSP (3.35 each), the Legal, Public Relations, Data and Information Subdivision (1.97), and the Head of Secretariat (1.91). The differences indicate an uneven distribution of workload capacity across functions. Such imbalance may affect organizational effectiveness through work accumulation, delays, and dependence on particular employees. Muchlisin (2021) emphasizes that a more balanced workload distribution can support organizational performance, while Kanya (2023) and Taufan et al. (2023) position FTE as an instrument for determining workforce requirements based on actual workload.

A high FTE value, however, does not automatically indicate the need for additional employees. The sources of workload, activity frequency, and opportunities for task redistribution and process simplification should first be assessed. Human resource optimization can therefore be pursued through task redistribution, work-process improvement, and workforce adjustment. Administrative activities that can be delegated may be redistributed to employees with appropriate competencies, while repetitive and time-consuming activities can be reduced through process simplification, digitalization, and document integration. Additional workforce capacity should be considered when redistribution and process improvement are insufficient to address persistent workload pressures. These approaches are consistent with Adi and Rusindiyanto (2020), Apriadi (2022), Kurniawan et al. (2022), Taufan et al. (2023), and Wibisono and Herwanto (2023).

Overall, the findings indicate that FTE provides a quantitative basis for addressing workload imbalance while supporting more effective allocation of human resources. Rather than focusing solely on the number of employees, workforce decisions should consider the actual workload and capacity of each organizational function.

5. FTE as a Human Resource Planning and Optimization Instrument

The findings indicate that human resource challenges at the Bawaslu Secretariat of Bojonegoro Regency are more closely related to the allocation of workforce capacity than simply to the number of employees. An organization may have an administratively adequate number of employees but still experience workload pressure when workforce capacity is not aligned with actual work requirements. FTE provides a useful diagnostic instrument by comparing *work demand*, represented by the time required to complete activities, with *work capacity*, represented by available effective working time. This approach is consistent with Muchlisin (2021), Matiro et al. (2021), and Wicaksono and Fadillah (2021).

The application of FTE is particularly relevant in public organizations because workload can change according to organizational activities and policy demands. In election-related organizations, workload may fluctuate according to electoral stages and supervision activities, creating the potential for periods of overload (Febriansyah & Husnayanti, 2019). Previous studies by Handoko and Sunardi (2020) and Prasetyo et al. (2023) also demonstrate that workload-based analysis can provide more objective information for workforce planning.

Based on these findings, FTE can be integrated into a continuous workforce optimization process:

actual workload → FTE calculation → workload gap identification → analysis of workload sources → task redistribution → work-process improvement → workforce adjustment → periodic evaluation.

This model positions FTE not merely as a tool for calculating workforce requirements, but as a basis for managerial decisions. When workload can be reduced through redistribution or process improvement, additional recruitment is not necessarily required. Workforce adjustment becomes relevant when excessive workload remains structural and cannot be addressed through internal optimization. Therefore, periodic FTE assessment can support a more responsive, efficient, and workload-based human resource planning system at the Bawaslu Secretariat.

Conclusion

This study shows that the main human resource issue at the Bawaslu Secretariat of Bojonegoro Regency lies in the uneven distribution of human resources relative to workload across organizational units, rather than simply in the number of available employees. The FTE analysis reveals substantial differences in workforce capacity requirements. The highest workload pressure is found in the Administration Subdivision, with an FTE value of 4.34, followed by the Election Supervision Subdivision and the Subdivision for Handling Violations and Settlement of Election Process Disputes (PPPSP), each with an FTE of 3.35. Meanwhile, the Legal, Public Relations, Data and Information Subdivision records an FTE of 1.97, and the Head of Secretariat records 1.91.

These differences indicate that workforce capacity is not yet fully aligned with the workload of each organizational function.

The findings confirm that a headcount-based approach is insufficient to accurately represent human resource requirements in public organizations. The FTE approach provides a quantitative basis for identifying gaps between work demands and workforce capacity, consistent with previous FTE studies in business and public organizations (Kanya, 2023; Kurniawan et al., 2022; Prasetyo et al., 2023; Taufan et al., 2023).

Human resource optimization at the Bawaslu Secretariat should focus on task redistribution, work-process improvement, functional adjustment, and selective workforce capacity enhancement when workload gaps cannot be addressed through internal redistribution. Periodic application of FTE can support the organization in adjusting workforce distribution to changes in workload volume and work characteristics. Overall, FTE should be positioned not merely as a method for calculating workforce requirements, but as a strategic instrument for diagnosing human resource distribution imbalances and supporting more proportional, effective, and workload-based human resource management in public organizations.

Reference

1. Adi, R., & Rusindiyanto. (2020). Penentuan jumlah teller berbasis beban kerja dengan metode Full Time Equivalent (FTE) di PT. Bank Jatim. *JUMINTEN: Jurnal Manajemen Industri dan Teknologi*, 1(6), 170–181. <https://doi.org/10.33005/juminten.v1i6.187>
2. Apriadi, D. (2022). Workload analysis using the Full Time Equivalent (FTE) method to optimize the workforce of the legal settlement unit and its supporting unit PT Telkom Indonesia (Persero) Tbk. *Jurnal Ekonomi*, 11(1), 140–149.
3. Bakhtiar, B., Syarifuddin, S., & Putri, M. P. (2021). Pengukuran beban kerja dengan metode Full Time Equivalent dan penentuan jumlah tenaga kerja efektif menggunakan workload analysis. *Journal of Industrial Engineering and Operation Management*, 4(1), 5–9. <https://doi.org/10.31602/jieom.v4i1.5332>
4. Damayanti, M. K. (2023). Perencanaan kebutuhan pegawai berdasarkan analisis beban kerja melalui metode FTE (Full Time Equivalent) pada PT X. *Civil Service Journal*, 17(1), 1–14. <https://doi.org/10.61133/pns.v17i1.388>
5. Dewi, W. C., & Al-Ghofari, A. K. (2020). Analisis beban kerja dengan metode Full Time Equivalent (FTE) untuk menentukan kebutuhan operator proses pengemasan kosmetik PT. XYZ. *Prosiding Industrial Engineering National Conference (IENACO)*, 96–103.
6. Febriansyah, R., & Husnayanti, A. (2019). Analisis beban kerja Kelompok Penyelenggara Pemungutan Suara (KPPS) menggunakan metode FTE (Full Time Equivalent) pada Pemilihan Umum Serentak Tahun 2019 di Kabupaten Bangka Tengah. *Electoral Governance: Jurnal Tata Kelola Pemilu Indonesia*, 1(1), 42. <https://doi.org/10.46874/tkp.v1i1.15>
7. Hafizah, R., & Azwir, H. H. (2022). Workload analysis on employee performance to determine the optimal number of employees by using Full-Time Equivalent and NASA-TLX at PT. Z. *Journal of Industrial Engineering*
8. Handoko, M. S., & Sunardi. (2020). Perencanaan pegawai berbasis beban kerja dengan metode Full Time Equivalent di Badan Pengelolaan Keuangan dan Pajak Daerah Kota Surabaya. *JUMINTEN: Jurnal Manajemen Industri dan Teknologi*, 1(2), 129–139. <https://doi.org/10.33005/juminten.v1i2.73>
9. Hardiansyah, H., Suliawati, S., & Sibuea, S. R. (2022). Analisis beban kerja dengan pendekatan metode Full Time Equivalent (FTE) pada pembuatan meja belajar di CV Setia Abadi. *Factory: Jurnal Industri, Manajemen dan Rekayasa Sistem Industri*, 1(2), 67–73. <https://doi.org/10.56211/factory.v1i2.194>
10. Hudaningsih, N., & Prayoga, R. (2019). Analisis kebutuhan karyawan dengan menggunakan metode Full Time Equivalent (FTE) pada departemen produksi PT. Borsya Cipta Communica. *Jurnal Tambora*, 3(2), 98–106. <https://doi.org/10.36761/jt.v3i2.278>
11. Injavira, A., & Hasanah, K. (2022). Analisis beban kerja melalui metode Full Time Equivalent untuk mengoptimalkan kinerja pegawai Dinas Kependudukan dan Pencatatan Sipil Kota Madiun. *Jurnal Ekonomi dan Bisnis (EK&BI)*, 5(1), 29–35. <https://doi.org/10.37600/ekbi.v5i1.439>
12. Kanya, N. (2023). Workload analysis using Full Time Equivalent method to optimize employee performance at PT. XYZ. *Journal of Economics and Business (JECOMBI)*, 3(3), 145–154. <https://doi.org/10.58471/jecombi.v3i03.65>
13. Kurniawan, H. S. (2020). Analisis beban kerja karyawan PT XYZ Indonesia pada bagian insulation menggunakan metode Full Time Equivalent. *STRING (Satuan Tulisan Riset dan Inovasi Teknologi)*, 5(2), 144–152. <https://doi.org/10.30998/string.v5i2.7783>
14. Kurniawan, H., Yulianah, Y., & Shaura, R. K. (2022). Workload analysis using the Full Time Equivalent (FTE) method to optimizing labor. *Enrichment: Journal of Management*, 12(4), 3058–3066. <https://doi.org/10.35335/enrichment.v12i4.772>
15. Matiro, M. A. D., Mau, R. S., Rasyid, A., & Rauf, F. A. (2021). Pengukuran beban kerja menggunakan metode Full Time Equivalent (FTE) pada divisi proses PT. Delta Subur Permai. *Jambura Industrial Review*, 1(1), 30–39. <https://doi.org/10.37905/jirev.v1i1.7774>
16. Muchlisin, M. N. (2021). Work load analysis dengan Full Time Equivalent sebagai pertimbangan pembagian beban kerja karyawan. *Psyche 165 Journal*, 14(2), 233–238. <https://doi.org/10.35134/jpsy165.v14i2.105>
17. Prasetyo, G. B., Sukamdani, N. B., & Sukwika, T. (2023). Employee workload analysis at the Financial Services Authority Human Resources Management Directorate with Full Time Equivalent (FTE). *JENIUS (Jurnal Ilmiah Manajemen Sumber Daya Manusia)*, 6(3), 649–660. <https://doi.org/10.32493/JJSDM.v6i3.29912>
18. Sabilah, A. I., & Daonil, D. (2023). Analisis beban kerja karyawan dan kebutuhan karyawan pada divisi pengelasan di PT TI. *Blend Sains Jurnal Teknik*, 1(3), 251–258. <https://doi.org/10.56211/blendsains.v1i3.207>
19. Sari, S., Imron, F. F., Nurfajriah, N., & Rahayu, F. I. M. (2022). Workload analysis with Full Time Equivalent

- method to optimize production unit performance at PT X. *Journal of Integrated System*, 5(2), 173–183. <https://doi.org/10.28932/jis.v5i2.5404>
20. Taufan, S., Rahmawati, R., Mujiyono, M., & Iskandar, D. A. (2023). Workload analysis with the Full Time Equivalent method approach to determine workforce required. *Jurnal STEI Ekonomi*, 32(2), 211–222. <https://doi.org/10.36406/jemi.v32i02.1371>
 21. Tridoyo, T., & Sriyanto, S. (2014). Analisis beban kerja dengan metode Full Time Equivalent untuk mengoptimalkan kinerja karyawan pada PT Astra International Tbk-Honda Sales Operation Region Semarang. *Industrial Engineering Online Journal*, 3(2).
 22. Wahyuni, N., Gunawan, A., Ferdinant, P. F., & Fitriyanti, E. (2019). Designing employee workload calculation based on Java-based Full Time Equivalent method. *IOP Conference Series: Materials Science and Engineering*, 673(1), 012098. <https://doi.org/10.1088/1757-899X/673/1/012098>
 23. Wibisono, M. H., & Herwanto, D. (2023). Analisis beban kerja pada karyawan divisi produksi PT. Empat Perdana Carton dengan metode Full Time Equivalent (FTE). *Jurnal Serambi Engineering*, 8(2), 5135–5141. <https://doi.org/10.32672/jse.v8i2.5473>
 24. Wicaksono, S., & Fadillah, A. M. (2021). Implementation of Full Time Equivalent method in determining the workload analysis of logistics admin employees of PT X in Jakarta, Indonesia. *European Journal of Business and Management Research*, 6(5), 159–162. <https://doi.org/10.24018/ejbmr.2021.6.5.1076>
 25. Zainal, R. I., & Ramadhanti, R. (2019). Need analysis of non-permanent employees with Full Time Equivalent (FTE) method. *E-Journal Apresiasi Ekonomi*, 7(3), 267–285. <https://doi.org/10.31846/jae.v7i3.257>