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Workforce Analysis of the Procurement Office at Visayas State University- Isabel

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Abstract. The Procurement Office at Visayas State University-Isabel Campus faces significant operational challenges due to insufficient staffing, which has resulted in inefficiencies, increased workload, and various work-related issues. This study aims to determine the optimal staffing level required to address these challenges and improve productivity. The researcher conducted a comprehensive work sampling study over 14 days to observe 1,348 instances of four staff members. The results showed that productivity exceeded the 70-75% standard range because Staff A reached 90.21%, Staff B reached 90.50%, Staff C reached 90.81%, and Staff D reached 93.77%. The research data demonstrates that additional personnel must be hired to prevent burnout and reduce stress while maintaining sustainable performance. The workforce score of 5.052 showed that the current staffing level exceeds the ideal threshold, and the office demands exceed the current team's capacity. Furthermore, the workload analysis demonstrated that a team of five staff members would maintain an average workload of 90.60%, staying well under the maximum limit of 100%. The study recommends hiring one more staff member to increase the total staff to five for better workload management and operational efficiency. The necessary staffing change will enhance productivity while creating a healthier workplace environment and guaranteeing sustained resource management for similar administrative operations.

Keywords: Fractional manpower; Fractional manpower cut-off values; Productivity; Workload analysis; Work sampling.

1.0 Introduction

The procurement function is central to any revenue-generation department in a company. Therefore, it exerts a great deal of influence in today's progressively changing organizational climate, and it should be regarded as a central component of operational success and revenue generation accountability. The procurement function oversees all operations involving vendor negotiation, contracting, and purchase order creation. A well-functioning procurement department is key to consolidating and ensuring adherence to regulations, optimizing procedures, reducing raw material costs, and identifying critical supply sources (Douaioui, Oucheikh, & Benmoussa, 2024).

Workforce analysis of staff is critical to determining the optimal workforce size. Through workload measurement and workforce demand/supply tracking, organizations can align their strategic planning with workforce gaps and then take corrective action. Precise workload measurement is required to calculate staff needs to support efficient work speed and achieve high productivity (Meirinawati & Prabawatii, 2019). Additionally, it is essential to properly assign tasks to a person according to their ability to avoid task boredom due to underutilization and

task fatigue due to overutilization (Turyadi, Zulkifli, Tawil, Ali, & Sadikin, 2023).

Overburdening employees can harm their well-being and performance, causing stress, fatigue, and low work-related efficiency (Fatkhuri, Tawil, Saragih, & Sriyanti, 2024). Empirical evidence suggests that workload can lead to understaffing, culminating in deteriorating employee and organizational outcomes. Staff shortages result in long wait times, causing customers to become irate. It is also a significant economic loss, seriously impacting the company's reputation (Sari, Winata, Andriani, & Putro, 2021). Given the critical role of procurement and the consequences of poor workforce management across organizations, examining how these challenges manifest in specific institutional contexts is essential. In educational institutions like Visayas State University-Isabel, where efficient administrative operations are vital for student and staff services, the impact of workforce shortages is particularly evident in core support offices such as procurement.

This broader understanding of procurement and workforce challenges provides the foundation for examining how these issues affect Visayas State University-Isabel. A preliminary survey at Visayas State University-Isabel found that the Registrar, Procurement, and Budget offices are inadequately staffed, which has led to delays, non-adherence, and failure to meet deadlines. These challenges highlight the necessity of optimizing staffing to enhance productivity. The purchasing office needs to address the workforce deficiency relative to its responsibilities. By ascertaining the ideal staffing requirements for Visayas State University-Isabel's Procurement Office, this study aims to address these staffing issues. Workload analysis and work sampling will determine the optimal workforce size, which will help ensure equitable task and resource distribution among office employees. The study findings will significantly improve the Procurement Office's operational effectiveness, advancing the university's overall objective of efficient resource management and adherence to timelines.

2.0 Methodology

2.1 Research Design

This study used a descriptive-observational research design to evaluate the staffing requirements of the Procurement Office at Visayas State University-Isabel. This design was selected due to its ability to capture first-hand observation and analyze staff behavior within the organizational milieu. Traditional data collection methods, like surveys and questionnaires, were unsuitable because such methods would not provide the real-time, contextual data important for determining staffing needs. The problem could be answered with the direct observation data, which was the most relevant and accurate. The researcher followed a clearly defined and controlled observational strategy for systematic data collection, which guided the research to be objective throughout the process (Chauhan, Bunkar, Verma, & Mounika, 2024). This allowed the researcher to understand the mechanisms of staff and task allocation and management, efficient office operations, and a comprehensive understanding of office morphology regarding office staffing and resource allocation.

2.2 Participants and Sampling Technique

The participants of this study consisted of (4) staff members from the procurement Office of Visayas State University-Isabel, which is composed of one (1) Procurement Office and three (3) Administrative Aid employees: the procurement office. These participants were selected using a purposive sampling method because they participated in procurement activities and were critical to the study goal, which was to determine optimal staffing levels. The inclusion criteria stated that participants needed to be full-time staff members of the Procurement office and actively involved in the Procurement processes. Exclusion criteria included staff away from active duty due to leave or temporary assignment elsewhere during the data collection period. Within this context, meeting the sample size was guided by the nature of the study and the small number of staff available in the office to examine the activities carried out by each staff member thoroughly.

2.3 Research Instruments

The study utilized several research instruments to assess the staffing needs. Several specialized evaluative tools were employed to determine the staffing requirements of the Procurement Office at Visayas State University-Isabel.

Work Sampling Observation Sheet

Work Sampling Observation Sheets allow for monitoring preliminary and actual observations of staff activities that provide insight into different time-allocation activities. This summarizes productive and unproductive tasks and the consistency of work patterns. As noted by (NAVMAC, 2021), these sheets were employed to record

observed activities, forming the basis for further analysis. The collected data encompassed the number of observations, start and end times, specific activities, and elapsed time, which was calculated as the difference between the start and end times.

Work Sampling Recap Sheet

The Work Sampling Recap Sheet summarizes the data collected from the Work Sampling Observation Sheet. It contains consolidated entries of all observed tasks, the frequency of each activity, and the percentage distribution of time spent per task category (e.g., core procurement duties, documentation, communication, idle time). This sheet allows the researcher to quantify the workload patterns and understand how staff time is distributed across tasks. The Work Sampling Recap Sheet presents daily and cumulative category observation totals alongside productivity data, facilitating comparison, analysis, and the removal of any anomalous daily data. Furthermore, it ensures a seamless transition from the Daily Work Sampling Observation Sheets to the Work Sampling Computation Sheet, supporting the overall accuracy and consistency of the data analysis process (NAVMAC, 2021).

Computation Sheet

The Computation Sheet is used to compute the ideal number of staff required in the Procurement Office. It compiles the quantitative data from the Work Sampling Recap Sheet, including total observed hours, frequency counts, and task percentages. The Computation Sheet calculates the measured work hours (actual workload observed) and compares them against allowed work hours (standard or expected). This helps derive the fractional workforce requirement, which informs recommendations for optimal staffing levels. Excel was extensively used for data entry, analysis, calculations, and estimation of fractional manpower requirements. Observations had to ensure tasks were time-sampled accurately and that sufficient tasks were completed to meet accuracy requirements (Buchmeister & Herzog, 2024). Staff interviews guided the observations (Turyadi, Zulkifli, Tawil, Ali, & Sadikin, 2023). All these instruments developed a valid systematic analysis of the requirements of the office from an operational and structural point of view. The Work Sampling Recap Sheet captured the time each staff member spent on different activities, and the Work Sampling Computation Sheet compiled the quantitative data to determine measured work hours and allowed work hours. The Work-hour Requirement Consolidation Sheet aided in the calculation of monthly adjusted work hours (NAVMAC, 2021) by incorporating overtime and variations in tasks and workload.

2.4 Data Gathering Procedure

The data for this study were gathered from observations and interviews with the Procurement Office employees at Visayas State University-Isabel. This data collection took place over 14 days and included preliminary and actual observations. All of these preliminary observations were done physically, meaning that the researcher personally observed all the actions performed by the staff throughout their day on a range of tasks to capture the time spent accurately. The number of actual observations needed for each employee was determined by conducting preliminary observations to determine the most critical tasks and time allotments. Work Sampling Observation Sheets were used to document staff activities during the actual observations, and Work Sampling Recap Sheets and Computation Sheets were used to compile the data. Additionally, interviews were conducted with them to learn more about the participants' everyday tasks and clarify their job responsibilities. Microsoft Excel was used to enter and analyze the data collected.

2.5 Data Analysis Procedure

The primary data for the study were quantitative and derived from staff time tracking and observatory activities. An analysis began with collecting data from the Work Sampling Observation Sheets, Work Sampling Recap Sheets, and Computation Sheets. The measured and permitted work hours, calculated from the Work-hour Requirement Consolidation Sheet, were further analyzed to establish fractional manpower and ideal staffing levels. Each employee's proportion of occurrence was calculated for productive, supportive, and non-productive activities. To better understand the time and staffing needs, statistical mean and frequency distribution calculations were executed on the data using Microsoft Excel. The analysis and the Concentration Calculation used the Work Sampling Method, which provided a statistically valid representation of the staff's time allocation and ensured consistency and reliability. The instruments used were constructed employing accepted work sampling procedures to achieve validity and reliability, guaranteeing they were appropriate for the study's objectives. The procedures are recognized for accurately measuring task time, and the researcher ensured that all observations were carefully captured and analyzed, thereby increasing the trustworthiness and validity of the

findings.

2.6 Ethical Considerations

Before the beginning of the data collection phase, the chancellor and advisers consented to the study, ensuring that ethical considerations and protection measures for participants were fully integrated into the research design. Throughout the study, every participant was guaranteed the right to withdraw their participation at any stage and suffer no consequences. Data confidentiality was ensured through secure data storage and restricted access, available solely to the researcher. No personal identifiers were used during the data analysis or reporting process, and the participants' identities were anonymized. Ethical guidelines were followed to protect participants' rights and maintain the research process's integrity.

3.0 Results and Discussion

3.1 Work Sampling Study

The responsibilities and tasks of the staff in the Procurement Office have been determined. The staff's job aspects in the procurement office are categorized into productive, supportive, and non-productive tasks. Productive tasks are primary responsibilities directly contributing to office goals, while supportive tasks aid in efficient job execution, also known as "indirect productive activities." Non-productive tasks do not align with office objectives. Staff A engages in 20 productive, 11 supportive, and two non-productive activities, indicating a focused role. Staff B and D participate in fewer productive tasks, with Staff D heavily involved in supportive activities. This variability suggests differing levels of task alignment with organizational goals.

Table 1. *Preliminary Observation Results*

Staff	Job Elements Category	Average Elapsed Time (mins)	Percentage of Occurrence (%)
A	Productive	335	69.79
	Supportive	71	14.80
	Non-productive	74	15.41
	Total	**480**	**100.00**
B	Productive	371.5	77.40
	Supportive	68	14.17
	Non-productive	40.5	8.44
	Total	**480**	**100.00**
C	Productive	395	82.29
	Supportive	50.5	10.52
	Non-productive	34.5	7.19
	Total	**480**	**100.00**
D	Productive	360	75.00
	Supportive	72.5	15.10
	Non-productive	47.5	9.90
	Total	**480**	**100.00**

The preliminary observation data revealed significant variation in the allocation of time across different tasks by staff members in the procurement office. Staff C exhibited the highest productivity, dedicating 82.29% of their time to productive tasks, indicating a strong commitment to their core responsibilities. Meanwhile, Staff A, B, and D allocated 69.79%, 77.40%, and 75% of their time to productive tasks, showcasing a more balanced distribution. However, Staff D dedicated a considerable portion (28.19%) to supportive tasks, which suggests a need for a review of task prioritization to improve focus on high-impact activities. The results are consistent with Sari, Winata, Andriani, and Putro's (2021) research, which emphasizes the importance of work sampling in task allocation analysis and improving the organization's efficiency. The analysis supports that detailed work monitoring gives valuable information in enhancing task distribution and thus improving productivity (Buchmeister & Herzog, 2024). Each employee's observed time allocation for productive, supportive, and non-productive tasks is displayed in the table above. Although every employee contributes substantially to productive work, this work sampling technique shows that improving task alignment can result in more efficient resource use and overall performance.

Staff D is assigned a wide range of responsibilities that naturally require the performance of numerous supportive tasks. As a university driver and procurement staff, many core duties—such as serving and retrieving Request for Quotations (RFQs) and purchase Orders, picking up items, and rendering official travel —are closely tied to preparatory and follow-up activities. These include preparing trip tickets, documenting fuel consumption, attending meetings, coordinating with suppliers, and organizing equipment and documents for travel or

meetings. While these may not be classified as directly productive, they are essential in ensuring the smooth execution of procurement and logistical operations. Therefore, the higher number of supportive tasks assigned to Staff D is justified and necessary for adequately performing their primary functions. Recognizing the importance of these supportive activities can help management make informed decisions regarding workload distribution and office efficiency. According to the differences between the staff, Staff D benefits from changes to concentrate more on core responsibilities. At the same time, Staff C could be a model for the best practices for maximizing productivity. These results confirm the importance of work sampling in maximizing staffing effectiveness and guaranteeing that resources are allocated where they are most needed (Sari, Winata, Andriani, & Putro, 2021).

Required Number of Observations

To determine the optimal number of observations per employee, a 95.45% confidence level was used (z = 2) along with a ±5% margin of accuracy (s = o.05). The required number of observations for each staff member was calculated using the work sampling formula:

$$n = \frac{z^2(p - p^2)}{s^2} \qquad \text{Equation 1}$$

Where z is the standard score for the desired confidence level, s is the desired level of absolute accuracy, and p is the proportion of time spent on the most frequently observed activity—productive work. The p-values were obtained from the subtotal percentage of productive task occurrences based on initial work sampling observations. These values were then substituted into the formula to compute the required number of observations per employee.

Table 2 illustrates the required number of observations for each employee to ensure that accurate data are collected. Of the staff members, A had the highest required observations at 337, followed by D at 300, B at 280, and C at 233. These varying numbers ensure enough observation samples per participant, enhancing the validity and precision of the study's findings and reflecting variations in the initial task distributions.

Table 2. *The Required Number of Observations*

Staff	Number of Observations
A	337
B	280
C	233
D	300

This implies a different distribution of workloads among the employees, with Staff A requiring the most observations. This individual may have more work to do or tasks that are more complex than those faced by other staff members. The difference in the required number of observations is proof of task assignment to each employee, with varying levels of responsibility and complexity. Since the required number of observations relates directly to the rigor of evaluation, it serves as a critical determinant in evaluating the effectiveness of workload distribution. This will ensure that staffing levels are aligned with the actual needs of each role (Meirinawati & Prabawatii, 2019). The approach determines an optimal staffing level so the office can meet operational requirements without overburdening any particular employee.

Utilization Percentage of Each Staff

The utilization percentages of each procurement office employee are displayed in the table according to their activities. It divides the work into three categories: non-productive, supportive, and productive. Table 3 shows each employee's utilization percentage based on the frequency of observed job elements. At 81.31%, Staff C had the highest percentage of productive activity, demonstrating a strong commitment to core duties. Staff A, B, and D followed with 72.70%, 68.84%, and 65.58%, respectively. While all staff members exceeded the standard productivity benchmark of 70–75%, as suggested by (Ariyani, Muhammad, Sya'diah, & Sadikin, 2024), only Staff C surpassed it significantly. However, consistently high productivity, as shown in Staff C's case, may pose risks of burnout if sustained without adequate support or rest. The varying levels of supportive and non-productive time across staff also indicate the need for workload balancing. These findings suggest that the Procurement Office may benefit from additional personnel to distribute the workload more evenly, ensuring that no single staff member is overwhelmed. These new team members could take on administrative tasks or assist with general procurement management, further relieving existing staff.

Table 3. *Utilization Percentage of Each Staff*

Staff	Job Elements Category	Frequency	Percentage of Occurrence (%)
A	Productive	245	72.70
	Supportive	59	17.51
	Non-productive	33	9.79
	Total	**337**	**100.00**
B	Productive	232	68.84
	Supportive	73	21.66
	Non-productive	32	9.50
	Total	**337**	**100.00**
C	Productive	274	81.31
	Supportive	32	9.50
	Non-productive	31	9.20
	Total	**337**	**100.00**
D	Productive	221	65.58
	Supportive	95	28.19
	Non-productive	21	6.23
	Total	**337**	**100.00**

3.2 Work Sampling Computation Sheet

Only the productive and supportive categories were considered in the computation of measured time. Productive activities refer to core tasks that directly contribute to the procurement process, while supportive activities support the completion of these tasks. These two categories reflect the actual working responsibilities of the staff and are essential in determining workload and manpower requirements. The measured time for the non-productive category was not included, as activities such as personal breaks, short idle periods, or unexpected delays do not directly support the core tasks of the procurement process. Based on the data provided in Table 4 below, a work sampling study was conducted to assess the time spent by employees in various categories. The table breaks down the frequency of observed occurrences across different tasks, categorized as productive, supportive, and non-productive. The total available observations were 1,348, of which 966 observations (71.59%) were categorized as productive, accounting for 320.71 hours of measured time, within the allowed time of 368.82 hours. Supportive tasks comprised 19.07% of the observations (256 instances), contributing 85.41 hours, while non-productive tasks accounted for 9.35% of the occurrences (126 instances).

Table 4. *Summary of Work Sampling Computation Sheet*

Categories	Frequency	Percentage of Occurrence (%)	Measured Time (Hrs.)	Allowed Time (Hrs.)
Total Productive	966	71.59	320.71	368.82
Total Supportive	256	19.07	85.41	98.22
Total Non-productive	126	9.35	-	-
Total Available Observations	1348	-	-	-
Total Work Hours Sampled (Available)	448	-	-	-

This work sampling analysis reveals a high percentage of productive activity expected in a well-functioning office. However, the notable amount of supportive and non-productive time indicates areas where efficiency could be improved. In particular, balancing the distribution of supportive and non-productive activities could contribute to better workload management and potentially reduce stress or burnout risks among staff. These results align with the findings by Meirinawati & Prabawatii (2019), who emphasize that efficient workload management is critical to maintaining both organizational success and employee well-being. This study suggests that the Procurement Office could benefit from targeted interventions to optimize task allocation, ensuring employees' workloads align with their skills and the department's needs.

Work-hour Requirements Consolidation Sheet

The work-hour analysis reveals crucial insights regarding workload management and staffing. The table captures that 554.4 hours of productive work were recorded; this includes 381.82 hours of total productive work plus 13 hours reported as non-sampled overtime. Supportive activities comprised 99.22 hours and one hour of non-sampled overtime, making the total hours for supportive activities 144.07. To execute these activities, 481.04 hours of total labor were required in support and productive work. The final adjusted hours of working time for the month, after allowances and fractional manpower have been accounted for, are 698.47 hours. Based on the requirement for fractional manpower calculated to be 5.052, close to five full-time employees would be needed to

meet workload demands.

Table 5. *Summary of Work-hour Requirements Consolidation Sheet*

Categories	Allowed Time From			Monthly Adjusted Allowed Time
	Work Sampling (A)	Non-Sampled Overtime (B)	Total	
Total Productive	368.82	13	381.82	554.4
Total Supportive	98.22	1	99.22	144.07
Total	467.04	14	481.04	698.47
Note: (1) 14 days of work sampling		Total Work Hours required		**698.47**
		Fractional Manpower (Total/WAF)		**5.052**

The fractional manpower requirement suggests that approximately five full-time equivalents would be needed to support the operational requirements, revealing that the Procurement Office is currently under capacity. This calls for additional hiring to mitigate employee burnout risks and enhance productivity. The result also relates to the study conducted by Meirinawati and Prabawatii (2019), wherein they noted that workload analysis is essential in determining the correct number of staff to avoid overloading them while keeping productivity at an optimal level. The study of Wolfe, Phillips, Laheru, and Fisher (2023 includes additional working hours, which makes a stronger statement about the impact of overloading work on stress and employee performance than without it. Therefore, as discussed by Wolfe, Phillips, Laheru, and Fisher (2023, addressing staffing shortages would directly relate to avoiding overtime work; this strengthens the argument that excessive workloads may cause stress and reduce employee performance. Thus, resolving staffing issues would be necessary for maintaining office efficiency and ensuring employees' welfare.

In response to the manpower shortage identified in the Work-hour Requirements Consolidation Sheet, it is recommended that the university implement a phased hiring strategy. This involves recruiting one additional full-time staff member dedicated to core procurement functions such as processing purchase orders, bid documentation, and supplier coordination. Additionally, to prevent recurring workload imbalance, the office should adopt a task reallocation strategy based on specialization, where supportive tasks (such as coordination and documentation) are redistributed according to staff strengths and current utilization levels.

3.3 Optimal Manpower Requirement Using the Workload Analysis (WLA)

Table 6 shows the staff's productivity percentages, which range from 90.21% to 93.77%, all of which are higher than the typical productivity range of 70-75% (Ariyani, Muhammad, Sya'diah, & Sadikin, 2024). According to the Workload Analysis (WLA) method, these represent the productivity percentages of the Procurement Office's employees. 90.21% was the productivity of Staff A, 90.50% of Staff B, 90.81% of Staff C, and 93.77% of Staff D.
According to these figures, all of the employees' productivity levels are comparatively high, with Staff A's productivity slightly rising to Staff D's. According to these figures, all of the employees' productivity levels are comparatively high, with Staff A's productivity slightly rising to Staff D's.

Table 6. *Productivity Percentage of the Staff*

Staff	Productivity Percentage (%)
A	90.21
B	90.50
C	90.81
D	93.77

The high productivity percentages demonstrate the staff's effectiveness in fulfilling their duties. It is important to note that even though these percentages demonstrate excellent performance, the variation among employees points to the necessity for additional research on workload distribution. Staff D's productivity, for example, is slightly higher than the others, which may be a sign of a heavier workload or a more effective method of completing tasks. This may need to be investigated for sustainability. According to (Fatkhuri, Tawil, Saragih, & Sriyanti, 2024), sustained high productivity levels without sufficient support may result in burnout and decreased efficiency over time. Therefore, by best practices for workforce management, the Procurement Office needs to think about workload balancing strategies to guarantee long-term sustainability and employee well-being (Wolfe, Phillips, Laheru, & Fisher, 2023).

Performance Rating

The performance codes presented in Table 7 are based on the Westinghouse System, which evaluates workers across four dimensions: Skill, Effort, Conditions, and Consistency. Each factor is rated using alphabetic codes paired with corresponding numerical values that quantify performance. For instance, under Skill, the code "C1" corresponds to a rating of +0.06, indicating that the staff possesses Good skills in performing their duties, particularly in areas such as computer literacy, which is essential in procurement work. The Effort category uses "D" to signify Average effort, with a neutral value of 0.00, suggesting a steady and acceptable work pace. Under Conditions, the code "B" equates to Excellent working conditions, rated at +0.04, reflecting favorable environmental factors in the office, such as good lighting, ventilation, and noise control. Lastly, Consistency is assessed using codes like "C," which stands for Good consistency and carries a value of +0.01. These values are summed to produce a Total Rating, which is converted into a Performance Rating factor (e.g., 1.10 or 1.11). This factor is subsequently used to adjust the allowed time in workload computations, ensuring more accurate staffing recommendations based on observed performance. Based on the computed performance ratings, Staff A and D received a rating of 1.11. In contrast, Staff B and C received 1.10, indicating high and consistent performance across all team members with minimal variation.

Table 7. *Performance Rating*

Staff	Westinghouse System				Total	Performance Rating
	Skill	Effort	Conditions	Consistency		
A	C1=0.06	D=0	B=0.04	C=0.01	11%	1.11
B	C1=0.06	D=0	B=0.04	D=0	10%	1.10
C	C1=0.06	D=0	B=0.04	D=0	10%	1.10
D	C1=0.06	D=0	B=0.04	C=0.01	11%	1.11

The information shows how employees evaluate their workplace's necessary abilities, diligence, and reliability. Apart from a minor variation in the consistency rating, all employees score similarly in the skill, effort, and conditions categories. Staff A and D's slightly higher overall performance ratings can be attributed to their higher consistency scores. Although this table emphasizes the consistency of skill and effort among all employees, it also emphasizes how minor variations in consistency and circumstances can result in marginally different performance ratings. Although there are a few slight variations in certain areas, the overall findings indicate that every employee performs at a high level. These findings suggest that, while all employees perform at a high level, further optimization in consistency and conditions may help enhance overall team performance (NAVMAC, 2021).

Allowances

The ILO Allowance Table refers to guidelines or standards set by the ILO (International Labour Organization) for allowances and benefits in the context of workers' compensation that encompasses a range of allowances, such as housing, transportation, meals, and other employee benefits. Table 8 lists employees' allowances based on constant and variable workload factors.

Table 8. *Allowances*

Category of Allowances	Staff			
	A	B	C	D
Constant Allowances				
Personal Needs	7%	5%	7%	5%
Basic Fatigue	4%	4%	4%	4%
Sub-total	11%	9%	11%	9%
Variable Allowances				
Standing	0%	0%	0%	0%
Abnormal Position	0%	0%	0%	0%
Weightlifting	0%	0%	0%	0%
Light Conditions	0%	0%	0%	0%
Air Conditions	0%	0%	0%	0%
Visual Stresses	2%	2%	2%	0%
Aural Stresses	0%	0%	0%	0%
Mental Stresses	1%	1%	1%	1%
Monotony (Mental)	0%	0%	0%	0%
Monotony (Physical)	0%	0%	0%	0%
Sub-total	3%	3%	3%	1%
Total	**14%**	**12%**	**14%**	**10%**
Allowances	**1.14**	**1.12**	**1.14**	**1.10**

With allowance multipliers of 1.14, 1.12, 1.14, and 1.10, respectively, Staff A and C received the most significant total allowances (14%), followed by Staff B (12%) and Staff D (10%). While variable allowances like standing, abnormal posture, and weightlifting were rated 0% because they involved seated, non-strenuous tasks, constant allowances like personal needs (5-7%) and basic fatigue (4%) were applied consistently. Most employees received modest allowances for mental and visual stress (2% and 1%), with Staff D being exempt from visual stress because of their different duties. These principles support equitable workload distribution, provide context for physical and mental demands, and guide staffing decisions. These results underline the need for a balanced workload distribution among various staff roles, suggesting that allowances should be based on the type of work completed. To ensure fairness and maximum productivity, allowance allocation should consider the work's cognitive and physical aspects (Fatkhuri, Tawil, Saragih, & Sriyanti, 2024).

Table 9. *The Workload Percentage Value of each Staff*

Staff	Workload Percentage	Percent Overload	Workload Category
A	114%	14%	High/Overload
B	111%	11%	High/Overload
C	114%	14%	High/Overload
D	114%	14%	High/Overload

The source of work overload and its implications are clearly outlined in Table 9, which displays the workload percentages and overload levels for each employee in the Procurement Office at Visayas State University-Isabel. The 'High/Overload' category indicates that all employees are experiencing a significant workload. Specifically, Staff A, C, and D each have a workload percentage of 114%, which reflects a 14% overload, while Staff B carries an 11% overload with a workload percentage of 111%. These values demonstrate that all staff members work beyond the optimal capacity, as the ideal workload is considered 100% (Ariyani, Muhammad, Sya'diah, & Sadikin, 2024).

Table 10. *Optimal Number of Manpower Based on the Workload Analysis*

Number of Manpower	Average Workload Percentage	Category
4 (existing)	113.25%	High/Overload
5 (recommended)	90.60%	Normal/Average

The table above presents the optimal manpower recommendation for the Procurement Office at Visayas State University-Isabel, based on workload analysis. The current four employees handle an average workload of 113.25%, which falls into the "High/Overload" category. This suggests that the existing manpower level is inadequate, leading to overburdened staff and potential risks of burnout and inefficiency. Increasing the staff count to five would reduce the average workload to 90.60%, bringing it within the normal range. According to (Sari, Winata, Andriani, & Putro, 2021), an ideal workload is around 100%, or within typical parameters, allowing workers to consistently perform their duties under normal conditions for an eight-hour workday.

The figure 90.60% was calculated by determining the average workload each staff member would carry if the recommended number of five personnel were assigned to the Procurement Office. The total observed workload from the existing four staff members amounted to 453%, which was computed by summing their workload percentages: Staff A (114%), Staff B (111%), Staff C (114%), and Staff D (114%). By dividing this total workload by the proposed five staff members, the resulting average workload is 90.60% (i.e., 453% / 5 = 90.60%). This percentage indicates that each staff member would be operating below the critical threshold of 100%, helping prevent burnout and allowing for more sustainable task allocation within the office.

3.4 Optimal Manpower Requirement in the Procurement Office

Table 11 outlines the proposed job description for one additional Administrative Aide I (Job Order) assigned as a Procurement Clerk in the Procurement Office. The table categorizes the duties into five core functional areas: Clerical Work, Logistical Support, Coordination and Communication, Messengerial Services, and Other Related Tasks. Specific responsibilities include reproducing and forwarding vouchers, performing clerical tasks, preparing meeting areas and documents, facilitating communication with the BAC and suppliers, and delivering necessary documents. This role is strategically intended to alleviate the workload of current staff—particularly those whose tasks significantly overlap with the listed duties, such as Staff A and Staff B—as identified in the prior workload analysis. This position aims to ensure smoother operations, timely task execution, and improved overall efficiency within the Procurement Office.

Table 11. *Job description of one (1) additional staff*

Position: Administrative Aide 1 - (JO) Function	Designation: Procurement Clerk Duties/Tasks
Clerical Work	1. Reproduce 4 copies of each voucher for office file and submission to the Budget Office for processing. 2. Perform clerical services as assigned.
Logistical Support	3. Prepare area and equipment for Regular, Emergency, Pre-bidding, and Bid Opening meetings. 4. Render official travel to support the services of the Procurement office.
Coordination & Communication	5. Inform the Supply Office of the deadline for delivery of different suppliers. 6. Follow up with BAC Members for the upcoming Meeting (Regular Meeting, Emergency Meeting, Pre-Bidding, and Bid Opening). 7. Follow-up BAC Secretariat for the Minutes of Meeting and monitoring status of the Minutes.
Messengerial Services	8. Deliver documents as needed 9. Forward sets of vouchers for payment processing to the Budget Office.
Other Related Tasks	10. Perform other related tasks assigned by the Head of the Procurement Office.

4.0 Conclusion

This study has provided critical insights into the staffing requirements of the Procurement Office at Visayas State University-Isabel, utilizing a combination of work sampling and workload analysis to determine optimal staffing levels. The findings indicate that the current staff number is inadequate, with staff members working at an average of 113.25%, well beyond the ideal 100% workload threshold. This excessive workload contributes to stress and fatigue and may compromise the accuracy, timeliness, and quality of procurement-related tasks. The recommendation to increase the workforce to five employees is not merely a numerical adjustment—it reflects a broader call for institutional reform in work distribution. Addressing the imbalance is expected to improve employee well-being, reduce burnout risk, enhance overall productivity, and ensure compliance with procurement timelines and procedures. These improvements can create a more sustainable and responsive workplace culture, where tasks are managed more efficiently, and morale is boosted due to reduced overwork.

The implications are significant for workplace practices and policy-making. Regular workload assessments should be institutionalized, ensuring staffing levels evolve alongside task demands. Moreover, adaptive staffing strategies, informed by data-driven insights, should be integrated into human resource and administrative planning. These steps can serve as a model for broader resource optimization within the university and other government offices. For future research, similar studies can be conducted in other administrative offices identified as understaffed in the preliminary survey, such as the Budget Office. Comparative studies across different departments may reveal systemic patterns and lead to university-wide improvements. Further, future studies could explore the long-term effects of implementing the recommended staffing adjustments, including qualitative assessments of employee satisfaction, process efficiency, and service delivery outcomes.

5.0 Contribution of Authors

AA – editing, writing, encoding, supervising, BA – data analysis.

6.0 Funding

The researcher solely funds the fund for this research.

7.0 Conflict of Interest

There is no conflict of interest in this research.

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