

Multiple Shocks, Income and Consumption Pattern of Civil Servants in Benue State: A Coping Strategy Perspective

Kelvin Agundu Tyoakura¹ and John Oboyi²

^{1&2}Postgraduate Student, Department of Economics,
Rev. Fr. Moses Orshio Adasu University, Makurdi-Nigeria

Joseph Fefa³ and Joseph Tarza Sokpo⁴

^{3&4}Department of Economics, Rev. Fr. Moses Orshio Adasu University, Makurdi-Nigeria

Abstract

This study examines the impact of multiple shocks (economic, social, health, environmental, and work-related) on the income and consumption patterns of civil servants in Benue State, Nigeria. It identifies coping strategies employed by the affected civil servants to mitigate the adverse effects of these shocks. Using a mixed-methods approach combining quantitative surveys (Descriptive and inferential statistics) and qualitative insights (Focus Group Discussion), the study finds that shocks significantly reduce income and alter consumption behaviors, forcing prioritization of basic needs and reliance on diverse coping mechanisms such as expense reduction, farming activities, and credit use. The findings contribute to understanding public sector resilience and the development of targeted policies to enhance economic stability for civil servants amid recurring shocks.

Keywords: shocks, income, consumption patterns, civil servants, coping strategies, Benue State, economic resilience

Introduction

Over the past two decades, Nigeria's socio-economic environment has been marked by persistent instability, exposing households and individuals to diverse shocks that threaten livelihoods and welfare. Civil servants, once considered economically secure due to regular wages and job stability, now face mounting pressures from inflation, wage delays, currency depreciation, fuel price hikes, and increasing taxation. The removal of fuel subsidies in May 2023 and the subsequent surge in the cost of living intensified these challenges, eroding purchasing power and increasing vulnerability across public sector households (National Bureau of Statistics [NBS], 2024). In Benue State, a predominantly agrarian region with a sizeable public workforce, these shocks have far-reaching implications, not only for individual welfare but also for local economic stability.

Shocks in this context can be economic, social, environmental, or health-related, and they often interact in ways that exacerbate their impacts (Dercon, 2002). Economic shocks such as inflation and wage arrears reduce real income, while social shocks like family crises disrupt household stability. Environmental shocks, including flooding and drought, affect food availability and prices, indirectly impacting civil servants. Health shocks, ranging from chronic illness to pandemics, can drain household savings and increase dependence on debt. The complexity and interlinkage of these shocks necessitate a multidimensional investigation that goes beyond purely economic measures.

Globally, literature on shocks and coping strategies has expanded significantly, highlighting resilience as a critical element of household survival (Carter et al., 2019; FAO, 2023). However, most studies in Nigeria focus on rural farming households, neglecting the experiences of salaried civil servants who, despite their regular incomes, are increasingly resorting to survivalist strategies. This gap is particularly evident in research from Benue State, where few empirical studies have examined how public sector workers navigate economic downturns, social crises, and health emergencies.

The coping mechanisms adopted by civil servants vary from reducing consumption and selling assets to relying on informal credit and social networks. While these strategies provide temporary relief, they often undermine long-term resilience, potentially leading to debt accumulation, nutritional deficits, and psychological stress (Adebayo & Ojo, 2021). In the absence of effective institutional support, many workers are forced into precarious arrangements that erode their economic security. This makes it crucial to understand the nature and frequency of shocks, their socio-economic effects, and the sustainability of coping responses.

Benue State presents a unique case study for examining these issues due to its combination of urban and rural public sector settings, varied socio-economic conditions, and a history of wage payment irregularities. Civil servants here often supplement their income through agriculture or petty trade, making them susceptible to both formal-sector and informal-sector shocks. Moreover, the state's fiscal dependence on federal allocations exposes it to macroeconomic fluctuations that directly affect wage payment schedules.

Against this backdrop, the present study investigates the types of shocks experienced by civil servants in Benue State, their effects on income and consumption patterns, and the coping strategies employed. Using a mixed-methods approach that integrates quantitative surveys with qualitative focus group discussions, the study provides nuanced insights into the vulnerability and resilience of public sector workers. Findings from this research will inform policy recommendations aimed at enhancing economic stability, improving social protection, and strengthening resilience among civil servants in Nigeria.

Literature Review

Conceptual Clarification

Shocks

Shocks are commonly defined as sudden and unexpected events that destabilize individuals, households, or institutions, creating disruptions that require rapid adjustments (Hallegatte et al., 2020). While traditionally framed in terms of economic disturbances, recent scholarship emphasizes the multidimensional nature of shocks, including health crises, social conflicts, environmental hazards, and governance failures (World Bank, 2023). Their defining characteristic is their unpredictability and the severe disequilibrium they introduce, which forces households to re-optimize resource allocation under severe constraints (Fosu, 2022). This multidimensional view provides a more holistic understanding but has been criticized for being conceptually diffuse, which can limit precision in measurement and policy design (Dercon, 2022). A widely used distinction in the literature is between **covariate shocks** which affect large populations simultaneously, such as inflation or pandemics and **idiosyncratic shocks**, which target individual households, such as illness or job loss (UNDP, 2021). While

analytically useful, this classification sometimes oversimplifies reality because many shocks overlap and cascade. For instance, Nigeria's 2023 fuel subsidy removal, a macroeconomic reform, not only triggered inflation but also generated social unrest and increased health vulnerabilities by reducing household food security (Adebayo, 2023). This interconnectedness underscores the importance of conceptualizing shocks as overlapping and compounding phenomena rather than isolated incidents.

Income

Income is conventionally defined as the total flow of money or compensation received over a given period, usually from wages, self-employment, investments, or transfers (ILO, 2019). While this definition provides clarity, it tends to be narrow, emphasizing cash flows and neglecting in-kind contributions, subsidies, and social transfers that are critical in many developing contexts (Deaton, 1997). In Nigeria, where informal transfers and community support play substantial roles in welfare, a strictly monetary framing risks underestimating household resilience or vulnerability (Kotlikoff, 2014). Thus, income must be understood in both monetary and non-monetary dimensions. Another limitation is the implicit assumption of stability in income streams. In practice, income for many workers in low- and middle-income economies is irregular and vulnerable to shocks. Even civil servants, often perceived as financially secure, experience volatility through salary delays, inflationary erosion of real wages, and inconsistent wage adjustments (Olawale, 2019). For example, the 2023 fuel subsidy removal in Nigeria reduced purchasing power significantly despite constant nominal wages (Adebayo, 2023). This disconnect highlights why income must be evaluated not just in nominal terms but also in its real, inflation-adjusted value.

The literature also tends to treat income as a sufficient measure of welfare, assuming higher income guarantees improved well-being. Yet in Nigeria, structural issues such as inflation, high dependency ratios, and corruption weaken the link between income and welfare outcomes (Obi & Okon, 2022). Even with regular salaries, civil servants may face financial strain due to rising food prices, healthcare costs, and family obligations. This challenges the simplistic assumption of income as a stable determinant of living standards. Additionally, income must be analyzed in its interaction with shocks. While shocks may reduce income directly (through delayed or reduced salaries), they can also increase expenditures, effectively lowering disposable income. Persistent shocks can lead to asset depletion, reduced savings, and erosion of future income-generating capacity (McCord et al., 2021). For civil servants, this means income is not a static measure but a fragile resource that determines both current survival and long-term resilience.

Consumption Pattern

Consumption pattern refers to how households allocate income across categories of goods and services such as food, housing, health, and education (World Bank, 2019). Classical economic theory distinguishes between necessary and discretionary expenditures, offering a useful framework (Kotlikoff, 2014). However, this approach often assumes stable income and ignores the role of shocks in reshaping consumption priorities. In practice, household consumption patterns are dynamic and highly sensitive to economic disruptions, particularly in developing contexts where credit and insurance markets are weak (Deaton, 1997). A central concept in the literature is **consumption smoothing**, where households attempt to maintain

living standards despite income fluctuations. However, in contexts like Nigeria, limited financial instruments and weak safety nets constrain households' ability to smooth consumption (Dercon, 2002). Civil servants, for example, often respond to wage delays or inflation by reducing food diversity, cutting healthcare spending, or withdrawing children from school. These adjustments demonstrate the limitations of applying idealized economic models to settings where households lack access to formal credit and insurance (McPeak, 2004).

Another weakness in conceptualizing consumption is the focus on quantity rather than quality. While households may maintain expenditure levels, they often downgrade to cheaper and less nutritious food or reduce the quality of healthcare services they access. This "hidden adjustment" masks the true welfare impact of shocks (Gentilini et al., 2022). For civil servants in Benue State, such shifts may mean sacrificing long-term health and productivity in order to meet short-term subsistence needs. Recognizing these qualitative changes is essential to fully capture the welfare implications of shocks.

Coping strategies

Coping strategies refer to the cognitive, behavioral, and institutional responses households deploy to manage the adverse effects of shocks (Compas et al., 2017). Early dichotomies, such as problem-focused versus emotion-focused coping, have given way to multidimensional taxonomies that recognize the interplay of engagement, disengagement, and adaptive mechanisms (Zimmer-Gembeck & Skinner, 2016). This expanded view captures the fluid and dynamic nature of coping but sometimes glosses over the differences between strategies that safeguard resilience and those that undermine future welfare (Bonanno et al., 2019). Thus, a more critical assessment of the quality and sustainability of coping strategies is necessary. A central issue is the **hierarchy of coping mechanisms**. Households usually exhaust low-cost strategies like savings or informal loans before resorting to more damaging measures such as selling productive assets or cutting essential expenditures (Carter & Barrett, 2017). This progression demonstrates how coping may initially buffer welfare but ultimately lead to vulnerability if shocks persist. In the Nigerian civil service, borrowing from cooperative societies or side hustles often provides temporary relief but can entrench cycles of debt and reduced job performance (Nwazue & Eze, 2020). Recognizing this hierarchy is essential in distinguishing adaptive from maladaptive strategies.

Theoretical Framework

This study draws primarily on the **Risk and Vulnerability Theory** and the **Sustainable Livelihoods Framework**. The Risk and Vulnerability Theory posits that households are constantly exposed to risks that can result in welfare losses, and their ability to manage these risks depends on access to resources, social networks, and institutional support (Holzmann & Jørgensen, 2001). Civil servants, though salaried, may be highly vulnerable if their wages are unstable or insufficient relative to inflationary pressures. The Sustainable Livelihoods Framework (DFID, 1999) views livelihoods as a combination of assets, human, social, financial, physical, and natural, used to achieve desired living standards. When shocks occur, these assets are either eroded or reallocated, affecting livelihood sustainability. Civil servants in Benue State often draw upon multiple asset types, for example, using agricultural land (natural asset) and savings groups (social asset) to cushion wage delays.

Empirical Review

Empirical studies in Nigeria have shown that civil servants are increasingly exposed to economic shocks that diminish purchasing power and trigger adaptive behaviours such as income diversification. Abdulaleem et al. (2023) examined the impact of income shocks on health and consumption patterns among farming civil servants in Southwest Nigeria. The study found that salary delays and health-related expenses significantly reduced disposable income, thereby constraining household consumption. Coping strategies identified included asset sales, reliance on religious and community support, and informal credit. This finding is directly relevant to the present study, as it demonstrates how civil servants navigate the dual challenge of reduced income and rising expenditure during shocks. Kudaisi (2022) investigated the coping mechanisms of government employees during periods of salary arrears in Southwest Nigeria. The study reported that prolonged salary delays compelled civil servants to adjust their consumption, substitute essential items, and rely heavily on savings or borrowing. These results align with the current study's focus on income disruptions and consumption adjustments among civil servants in Benue State, where salary irregularities are also a frequent shock. Bosede et al. (2021) analyzed the income shocks and consumption patterns of the workforce in Osun State, Nigeria. The research showed that fluctuations in monthly salary earnings negatively affected household consumption, often leading to reduced food intake and deferred health expenditures. The authors recommended diversification of income sources as a coping mechanism. This study strengthens the argument that civil servants are particularly vulnerable to shocks because of their heavy reliance on fixed monthly income. Ajefu et al. (2023) explored the effects of COVID-19 related shocks on Nigerian households, focusing on job losses, illness, and price hikes. They found that income shocks reduced access to basic needs, while households employed coping strategies such as reducing consumption, seeking assistance from social networks, and taking on additional informal jobs. The study underscores the multidimensional nature of shocks and their far-reaching consequences on both income and consumption, which is critical for analyzing civil servants' experiences in Benue State.

Beyond Nigeria, comparative studies also provide insights. Nkurunziza et al. (2023) highlighted how household composition and employment structure influenced coping responses to shocks in Rwanda. Similarly, Krueger et al. (2023) demonstrated how labour income shocks in Italy constrained household budgets and led to adjustments in consumption consistent with the Permanent Income Hypothesis. These findings validate the theoretical underpinnings of this research by showing cross-country patterns in the income-consumption-coping nexus.

Mbe-Nyire Mpuure et al. (2022) examined health shocks in Ghana and found that they significantly reduced household welfare through diminished consumption, with social assistance mitigating these effects. Likewise, Bakhtiar and Rabbani (2022) showed how health and agricultural shocks in Bangladesh disrupted household consumption but were cushioned through social networks and loans. These studies are important for understanding how non-income shocks, such as illness, interact with income to affect consumption patterns, a factor also relevant to civil servants in Benue.

Ansah et al. (2021) and Ogebe et al. (2020) further emphasize that coping strategies often involve asset depletion, savings withdrawal, or reliance on collective associations such as cooperatives and burial societies. This resonates with the coping strategies frequently employed by civil servants in Nigeria, particularly through cooperative societies, which function as an informal social safety net.

Methodology

Research Design and Data

The study employs a survey design; it uses both quantitative and qualitative methods of data collection using a structured questionnaire and focus group discussions (FGDs). One local government area was selected purposively from each of the three senatorial districts in Benue State, and also the state capital. The respondents were chosen from Ministries/ Departments/Agencies (MDAs) of health, education, and finance using convenient sampling. The target population comprised state civil servants across Benue state on the payroll during the study. A sample size of 361 respondents was selected using the Taro Yamane (1967) method, out of which 344 were valid and analyzed. Two FGDs (Senior and Junior staff), comprising six discussants each, were conducted in each of the local government areas. The discussants were chosen purposively among the workers in each of the local governments. The quantitative data were analyzed using descriptive statistics and regression analysis, while the qualitative data were transcribed and analyzed collectively using content analysis.

Study Area

The research focuses on Benue State. Benue State is located in the Middle Belt region of Nigeria. Benue State was created on February 3, 1976, during the military regime of General Murtala Mohammed. It was carved out of the former Benue-Plateau State, which later became Benue and Plateau States. The state derives its name from the River Benue, the second largest river in the country, and the most prominent geographical feature in the state. Benue State is home to over 10 ethnic groups, with the Tiv and Idoma being the largest. Each group has contributed uniquely to the cultural tapestry of the state.

Data Analysis and Interpretation

In order to obtain respondents' views, 361 copies of questionnaires were distributed, and also the FGDs that were carried out in the four selected local government areas, comprising 6 discussants each. From the administered questionnaires, 344 were retrieved since some of the questionnaires were not collected at the spot. Therefore, the 344 retrieved questionnaires serve as a basis for the research quantitative data analysis.

Socioeconomic Characteristics of Respondents

From Table 1, the result shows that 192 (55.8%) of the Civil Servants were male, while 152 (44.2%) were female. The results show that the majority of the civil servants fall within the age bracket of 36-40,31-35 having a percentage of 23.5%,22.4% respectively. This shows that most of the civil servants in the state are young and energetic to carry out their daily work activities. The result also shows that 82% of the civil servants have attained the level of tertiary education. The majority (52.3%) of the Civil Servants were married.

The result shows year of working experience of the civil servants is mostly within the range of 5-10 years. Also, the results from Table 5.1 show that 52.6% of the civil servants are found in the senior cadre, while 47.4% are found in the junior cadre, also 64.5% of the civil servants are permanently employed, while 35.5% are still on probation, working temporarily. The results of the findings in Table 1 show that the majority of the respondents are within the grade level of 8-12, followed by those within 1-7.

Table 1: Distribution of Sampled Respondents by their Socioeconomic Characteristics		
Characteristics	F	%
Gender		
Female	152	44.2%
Male	192	55.8%
Age		
18-24	21	6.1%
25-30	47	13.7%
31-35	77	22.4%
36-40	81	23.5%
41-45	32	9.3%
46-50	38	11.0%
51-55	28	8.1%
56-60	20	5.8%
Educational Qualification		
Primary education	10	2.9%
Secondary education	52	15.1%
Tertiary education	282	82.0%
Marital Statues		
Single	80	23.3%
Married	180	52.3%
Widow/widower	33	9.6%
Divorce	51	14.8%

Source: Field Survey 2025

Table 1B: Distribution of Sampled Respondents by their Socioeconomic Characteristics		
Years of Work Experience		
<5	78	22.7%
5-10	139	40.4%
11-15	64	18.6%
16-20	20	5.8%
21-25	23	6.7%
26-30	20	5.8%
Work Cadre		
Senior	181	52.6%
Junior	163	47.4%
Employment Statues		
Permanent	222	64.5%
Temporary	122	35.5%
Grade Level		
1-7	102	29.6%
8-12	177	51.5%
13-17	65	18.9%

Source: Field Survey 2025

Types of shocks most commonly experienced by respondents

The respondent were asked about the various types of shocks that is most commonly experienced by civil servants in Benue State, the types of shocks ranges from economic, health, social, environmental and technological shocks, respondent were allowed to tick more than just one shock they have experienced covering a period of May 2023 to December 2024, result in Table 2 shows that out of 344 respondents 327 of them indicated that economic shock was the predominant shock that they as civil servants in Benue State have experienced most within this period, this could be due to the economic downturn Nigeria as a country have been experiencing with the inflation on the high, devaluation of the national currency, low wages and more. This is followed jointly by health and social shocks as many of the respondents have experienced various health challenges and also challenges at personal and family issues. Experience with environmental shocks (34.6%) and work-related shocks (23.0%) reveals varied vulnerabilities in the civil servants' operational context, while 23.8% account for other various shocks experienced by the respondents. The table shows that civil servants experienced more than just one type of shock, with an overall 307.3% multiple responses.

Table 2: Distribution of Sampled Respondents by the types of shocks they most commonly experienced within May 2023- December 2024

Types of shocks experience	N	Percent of cases	Ranked
Economic Shocks	327	95.1%	1 st
Health Shocks	225	65.4%	2 nd
Social Shocks	225	65.4%	2 nd
Environmental Shocks	119	34.6%	4 th
Work-related Shocks	82	23.8%	5 th
Others	79	23.0%	6 th
Total	1057*	307.3%*	

Source: Field Survey 2025, * Respondents were allowed to make multiple responses Culled from FGD

The delay in salary payment for months forced me to borrow from three different cooperative societies just to keep my family fed." (Senior Staff, Ministry of Education, Gboko LGA)

"We used to manage with little, but after the fuel price increase, even transportation to work became a daily struggle." (Junior Staff, Ministry of Health, Makurdi LGA)

Effects of multiple shocks experienced on income of respondents

To understand the effects of cumulative shocks experienced by of civil servants in Benue State on their income, firstly respondents were asked to indicate what their monthly income is? Respondents were given open room to indicate their monthly income, but in analyzing the income of the civil servants it was categorized. Figure 1 below showed that a greater number of the participants earn a monthly income between the range of 105,001 to 135,000 Naira, which may not be sufficient to withstand the pressures from various shocks.

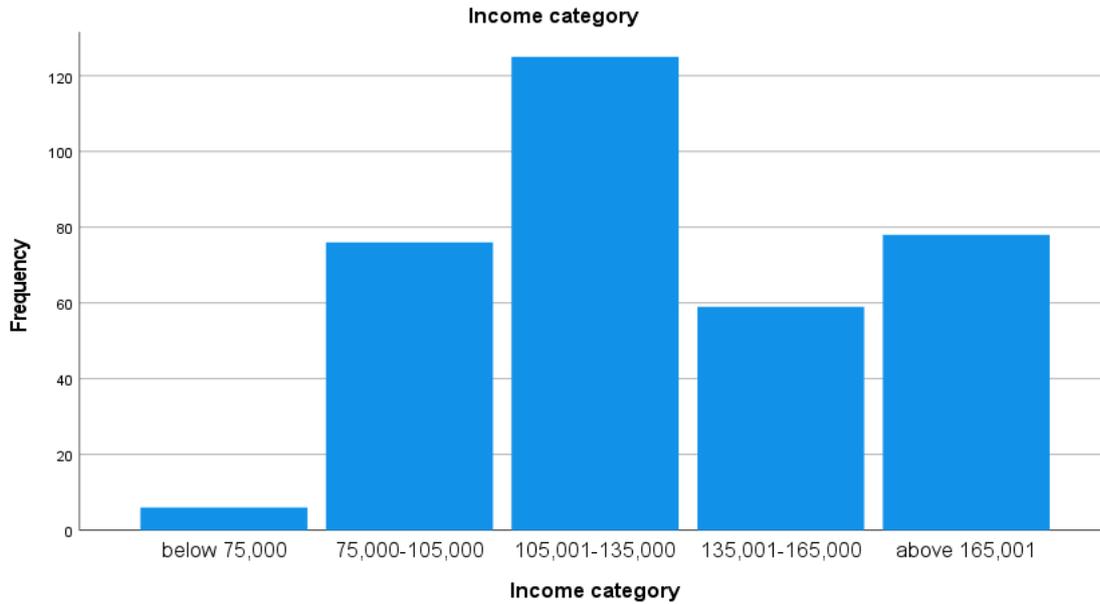


Figure 1: Income of Respondents, Source: Field survey 2025

Respondents were also asked to indicate about the various ways the multiple shocks experienced by them had affected their monthly income as civil servants, the respondents were given room to select one than way in which they feel the various shocks they have experienced have affected their income, from their responses in table 3, 67.7% indicated a reduction in the value of salary (income) since experiencing this shocks, thereby making them to have a less purchasing power, also 66.6% of the respondents indicated that they were unable to save in the moment of experiencing cumulative shocks, while 60.2% indicated increase in expenses as one of the effects that these shocks experienced by them have cause. 49.4%, stated loss in their secondary income as one of the major effects they encountered, 41.0% indicated an increase in debt burden.

Table 3 Distribution of Sampled Respondents by the effects of multiple shocks on their income

Effects	N	Percent of cases	Ranked
Reduction in value of salary	233	67.7%	1 st
Inability to save	229	66.6%	2 nd
Increase expenses	207	60.2%	3 rd
Loss of secondary income	170	49.4%	4 th
Increase debt burden	168	48.8%	5 th
Others	141	41.0%	6 th
Total	1148*	333.7%*	

Source: Field survey 2025,

* Respondents were allowed to make multiple responses Culled from FGD

"In my case, shocks have meant that I'm constantly living pay check to pay check. The salary isn't enough, and with unexpected shocks, I have to rely on loans or even ask for help from relatives." Female Junior Staff Ministry of Finance, Otupko

"It severely impacts how we manage our income. When shocks accumulate, we often find ourselves unable to save anything, and our income doesn't stretch far enough to cover all the demands Male Senior Staff Ministry of Health Makurdi

"I've experienced a decrease in my income due to the different shocks I have encountered over the past months, and it's been a great challenge to adjust to the new financial reality even with the increase in minimum wage it has not been easy for me." Female Senior Staff Ministry of Agriculture, Vandeikya.

Effects of multiple shocks experienced on consumption pattern of respondents

Respondents were asked whether they have change their consumption pattern that they have been used to as a result of the various shocks they experienced. The respondents were to give a yes or no answer,73.26% reported yes that they have change their consumption pattern on goods and services by decreasing expenditure on some items they deem not too necessary, only about 26.74% reported no to question.

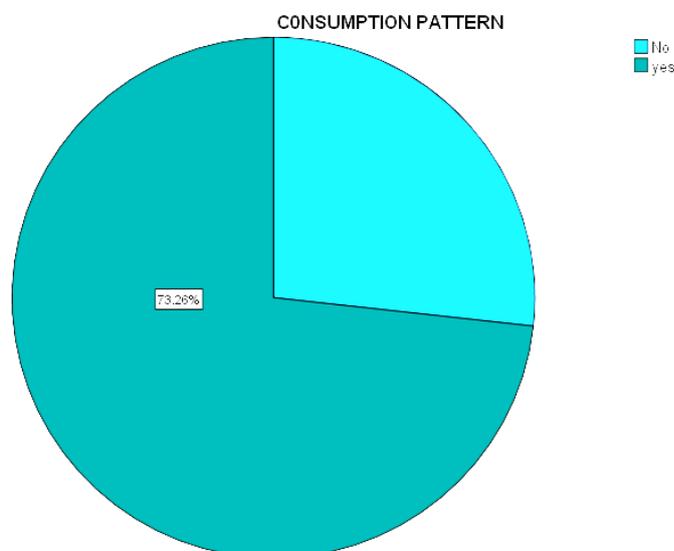


Figure 2: Changes in consumption pattern by respondents, Source: Field survey 2025

The respondents were also asked to response to if they had changed their consumption pattern due to various shocks they experienced, on what goods and services have they had to decrease expenditure on. 73.26% that said yes gave responses, they were given room to select multiple option among the goods and services they had to reduce expenditure on. It can be seen in table 4 that most of the respondent reported changing their spending habits due to the shocks, primarily by cutting down on non-essentials. Reductions were most prominent in entertainment and clothing, indicating prioritization of basic needs

Table 4: Distribution of Sampled Respondents by the reduction in expenditure on some goods and services

goods and services	N	Percent of cases	Ranked
Entertainment	242	88.6%	1 st
Clothing	204	74.7%	2 nd
Food	178	65.2%	3 rd
Transport	157	57.5%	4 th
Housing and utilities	150	54.9%	5 th
Others	67	24.5%	6 th
Education	65	23.8%	7 th
Healthcare	60	22.0%	8 th
Total	1123*	411.4%*	

Source: Field Survey 2025,

* Respondents were allowed to make multiple responses Culled from FGDs

'I've had to change my consumption pattern due to the consistent shocks I have been experiencing at the moment, such as reducing my spending on non- essentials goods. It's not easy, but I've learned to be more frugal and find ways to make ends meet.' (Male Senior Staff, Ministry of Education, Gboko LGA)

Before, I could buy meat every week. Now, it is only on special occasions; most days we manage with fish or vegetables.' (Female Junior Staff, Ministry of Finance, Otukpo LGA)

Coping strategies employed by respondents to cushion effects of multiple shocks experience

The respondents adopted a variety of strategies to cope with the effects of shocks they experienced. The respondents as seen in Table 5 used more than just one strategy so as to be able to mitigate the effects of shocks especially on their income and consumption pattern. The most commonly used strategy was cutting down expenses on goods like durable or luxury goods since they feel they can be able to do without them at the moment (73.0%). This was closely followed by engaging in farming activities since Benue State is regarded as food basket of the nation, civil servants felt this will help cushioning the effects of buying food at an expensive price (68.3%), coming in third is buying in bits/units (64.8%).

Other coping strategies includes buying on credit to be able to pay later when salaries are being paid (62.5%), withdrawal from personal savings (53.8%) and getting loans from cooperative societies (50.3%), These behaviors highlight a reliance on social networks and financial adaptability. Engaging in other jobs after office hours (49.4%) was strategy used by the respondents to be able have an extra income apart from their normal monthly salary as a strategy to create supplemental income. Few respondents (13.1%) received financial and material support from government programs.

Table 5: Distribution of Sampled respondents by their Coping strategies employed

Coping Strategies	N	Percent of cases	Ranked
Cutting down expenses	251	73.0%	1 st
Engaging in farming activities	235	68.3%	2 nd
Buying in bits/units	223	64.8%	3 rd
Buying on credit	215	62.5%	4 th
Withdrawal from personal savings	185	53.8%	5 th
Getting loan from cooperative societies	173	50.3%	6 th
Engagement in extra jobs after office hours	170	49.4%	7 th
Assistance from family and siblings	144	41.9%	8 th
Others	140	40.7%	9 th
Loan money from money lenders	124	36.0%	10 th
Using gains from personal business	105	30.5%	11 th
Religion affiliation support	75	21.8%	12 th
Sale of assets and property	70	20.3%	13 th
Loans from financial institutions	61	17.7%	14 th
Getting financial and material support from government programs	45	13.1%	15 th
Total	2216*	644.2%*	

Source: Field Survey 2025,

* Respondents were allowed to make multiple responses Culled from FGDs

"I decided to start a small poultry farm to supplement my income. It's not much, but it helps to have a little extra cash flow." – Female Senior Staff ministry of Health Makurdi

"I reduced my expenses by cutting back on luxuries, cancelling unnecessary subscriptions, and limiting outings. It's a way to stretch the little income we have." Male Senior Staff Ministry of Education, Gboko

"I rely on credit. If I can't afford something, I take a loan, sometimes from a local microfinance institution, just to keep things moving." Male Junior Staff Ministry of Agriculture, Vandeikya

Hypothesis Testing

To test the three hypotheses formulated linear regression analysis was used to conclude.

H0₁: Multiple shocks experienced by Civil Servants in Benue State have no significant effects on their income.

The above hypothesis was tested to ascertain the effects of various shocks that civil servant experienced on their income, linear regression analysis was employed to determine the effects of shocks and other control variables on income.

Table 6: Regression Coefficients for Income and Multiple Shocks

Variable	Coefficient (β)	Std. Error	t-value	p-value
(Constant)	4.693	.040	115.977	.000
Multiple Shocks	-.027**	.023	-2.194	.033
Age	.008**	.003	2.93	.003
educational qualification	.013	.009	1.414	.158
Gender	.009	.008	1.159	.247
grade level	.183**	.008	22.920	.000
work cadre	.000	.010	-.029	.977
R-squared: 0.781				
Adjusted R-squared: 0.777				
F-statistic: 199.723 (p < 0.000)				

Source: Author’s computation 2025

a. Dependent Variable: logincome, Note {***}, {**}, and {*} denotes statistical significance at 1%, 5% and 10% respectively.

Note: $p < 0.05$ indicates statistical significance.

Table 6 shows that the coefficient of determination R^2 for the model is 0.781 or 78.1%. This indicates that 78.1% of the variation in the model can be explained by the explanatory variables of the model while 21.9% of the variation can be attributed to unexplained variation captured by the stochastic term. The Adjusted R square and R^2 shows a negligible penalty 77.7% for the explanatory variables introduced by the researcher in the model. Result from Table 6 also shows that the statistical significance of model 1 that the independent variables statistically significantly predicts the dependent variables $F = 199.723$, $p\text{-value} = .000$ that is to show that the regression model is a good fit of the data.

Table 6 shows that multiple shocks experienced by civil servants in Benue State has a negative effect on their income and the effect is statistically significant ($p < 0.05$), this means that a unit increase in the types of shocks experienced by civil servants in Benue State will result to 2.7% decrease in their income. Therefore, using the probability value of the estimate, $p(\beta_1) < \text{critical value}$ at 0.05 confidence level. Thus we reject the null hypothesis. That is, we accept that the estimate β_1 is statistically significance at 5% level of significance implying that the types of shocks experience by civil servants in Benue State has a significant effect on their income. The result also shows that the other control variables used in the model are all positively with income except work cadre, age and grade level all show to be statistically significance, while educational level, gender and work cadre are all statistically insignificance.

H0₂: Multiple shocks experienced by Civil Servants in Benue State has no significant effects on their consumption pattern.

The above hypothesis was tested to ascertain the effects of various shocks that civil servant experienced on their consumption pattern, linear regression analysis was also employed to determine the effects of shocks and other control variables on consumption pattern of civil servants in Benue State.

Table 7: Regression Coefficients for Consumption pattern and multiple shocks

Variable	Coefficient (β)	Std. Error	t-value	p-value
(Constant)	4.734	.056	84.244	.000
Multiple Shocks	-.030**	.073	-2.416	.031
number of dependents	.020	.013	1.483	.139
Gender	-.058**	.025	-2.295	.022
household size	.009	.016	.591	.555
Age	.052**	.008	6.157	.000
marital status	.029**	.012	2.296	.022
R-squared: 0.824				
Adjusted R-squared: 0.799				
F-statistic: 17.927 (p < 0.001)				

Source: Author's computation 2025

a. Dependent Variable: logconsumption, Note {***}, {**}, and {*} denotes statistical significance at 1%, 5% and 10% respectively.

Note: p < 0.05 indicates statistical significance.

Table 7 shows that the coefficient of determination R^2 for the model is 0.243 or 24.3%. This indicates that 24.3% of the variation in the model can be explained by the explanatory variables of the model, while 75.7% of the variation can be attributed to unexplained variation captured by the stochastic term. The Adjusted R-squared and R^2 show a negligible penalty of 22.9% for the explanatory variables introduced by the researcher in the model.

The result from Table 7 also shows that the statistical significance of model 2 that the independent variables statistically significantly predict the dependent variables $F = 17.927$, p -value = .000, showing that the regression model is a good fit of the data.

Table 7 shows that multiple shocks experienced has a negative effect on the consumption pattern of civil servants in Benue State and is statistically significant ($p < 0.05$). This means that a unit increase in the multiple shocks experienced by civil servants in Benue State will result in a corresponding 3.0% decrease in their consumption pattern. Therefore, using the probability value of the estimate, $p(\beta_1) < \text{critical value at } 0.05 \text{ confidence level}$. Thus, we reject the null hypothesis. That is, we accept that the estimate β_1 is statistically significant at 5% level, implying that the multiple shocks experienced by civil servants in Benue State have a significant effect on their consumption pattern. The result also shows that the other control variables used in the model are all positively related to consumption pattern, except that gender, age, grade, and marital statuses all show to be statistically significant, while the number of dependants and household size are all statistically insignificant.

Discussion

The findings of this study demonstrate that civil servants in Benue State are highly vulnerable to multiple shocks, particularly economic shocks, which were reported by 95.1% of respondents. This aligns with Kudaisi (2022) and Abdulaleem et al. (2023), who also found that salary delays, inflation, and rising costs of living eroded disposable income among civil servants in Southwest Nigeria. The significant effect of shocks on income, confirmed by regression analysis, shows that a unit increase in the number of shocks leads to a 2.7%

decrease in income. This illustrates the precarious position of salaried workers whose earnings are fixed but whose expenses rise sharply during crises.

The study also revealed that shocks negatively and significantly affect consumption patterns. Civil servants reported prioritizing basic needs such as food and housing while cutting back drastically on discretionary spending such as entertainment and clothing. This is consistent with the Permanent Income Hypothesis (Friedman, 1957), which suggests that households adjust consumption in response to income shocks, although in this case, consumption smoothing was constrained by limited savings and credit access. The reduction in food expenditure by 65.2% of respondents also underscores potential risks of malnutrition, confirming earlier studies by Bosedede et al. (2021) and Ajefu et al. (2023), which linked income shocks to compromised food security and health outcomes.

The coping strategies adopted by respondents further highlight the adaptive but unsustainable measures civil servants resort to in the face of shocks. The most common strategy was cutting down expenses (73.0%), followed by engaging in farming (68.3%) and reliance on credit (62.5%). These findings echo Nguyen et al. (2020) and Nkurunziza et al. (2023), who found that households in shock-prone contexts often depend on informal mechanisms such as farming, loans from cooperatives, and support from family or religious institutions. However, the heavy reliance on borrowing (both from cooperatives and money lenders) raises concerns about debt traps, while asset sales and reduced consumption can erode long-term resilience.

Overall, the discussion highlights that while coping strategies provide temporary relief, they do not address the structural vulnerabilities of civil servants. Without institutional safety nets, civil servants are forced into cycles of borrowing, asset depletion, and reduced welfare, thereby undermining resilience.

Conclusion and Recommendations

This study concludes that multiple shocks; economic, health, social, environmental, and work-related significantly affect the income and consumption patterns of civil servants in Benue State. Economic shocks, particularly inflation, salary delays, and rising living costs, were the most prevalent. The regression results confirmed that shocks negatively and significantly influence both income and consumption.

Civil servants have developed a range of coping strategies, such as reducing expenses, engaging in farming, borrowing from cooperatives, and taking on secondary jobs. While these strategies provide immediate relief, they are not sustainable and, in many cases, exacerbate long-term vulnerabilities by increasing debt burdens and reducing future welfare.

The findings underscore the urgent need for government interventions to stabilize civil servants' incomes, improve access to affordable credit, and strengthen social protection mechanisms. Without such interventions, the cycle of vulnerability and coping may continue to deepen, eroding both household welfare and public sector productivity.

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Cumulative Sum Test

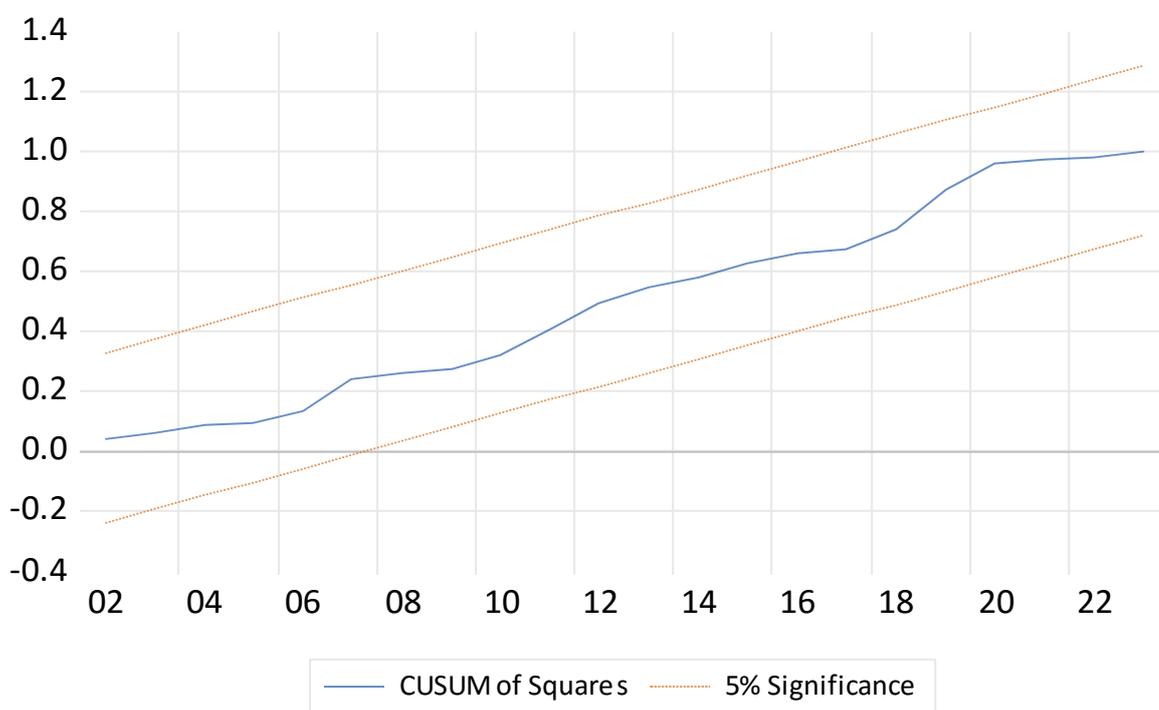


Figure A3: Result of the Cumulative Sum of Squares Test