

STUDENTS' DEMOGRAPHIC CHARACTERISTICS AND THEIR PERFORMANCE IN ECONOMICS IN OSUN STATE

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Abstract

The study examined the influence of secondary school students' gender and socio-economic background on their academic performance. The study also determined the influence of secondary school students' socio-economic background on their attitude toward Economics in Osun State, Nigeria. The research adopted a descriptive survey design. The population comprised all Senior Secondary School II students offering Economics in public schools across the state. A sample of 720 students was selected using a simple random sampling technique from twelve (12) schools. Data were collected using the Socio-Economic Background Questionnaire (SEBQ), Mathematical Economic test (MET) and Economics Students' Attitudinaire (ESA), and they were analysed using mean, standard deviation, and Pearson Product-Moment Correlation. The findings revealed that gender significantly influenced students' academic performance in Economics ($R = -0.14$; $p < 0.05$), with female students outperforming males. Similarly, socio-economic background had a significant positive influence on students' attitude towards Economics ($R = 0.29$; $p < 0.05$). Based on the findings, it was recommended that schools should adopt gender-responsive instructional strategies and provide support mechanisms for students from low-income backgrounds to improve both performance and disposition toward Economics.

Keywords: Academic Performance, Students' Attitude, Gender, Socioeconomic Background

1. Introduction

The persistent decline in economics proficiency among senior secondary school students in Nigeria represents a critical educational and developmental challenge. As a discipline fundamental to fostering financial literacy, informed citizenship, and national economic planning, economics occupies a pivotal role in the secondary school curriculum. However, consistent reports from examining bodies, notably the West African Examinations Council (WAEC), reveal a troubling pattern of underachievement. Chief Examiners have recurrently highlighted students' deficiencies in numerical computation, data interpretation, and grasp of core economic principles (WAEC, 2022). This performance gap underscores a systemic failure to equip students with essential analytical skills, potentially undermining Nigeria's long-term socioeconomic development goals.

The roots of this underperformance are multifaceted, embedded in a complex interplay of student demographics, psychosocial factors, and contextual constraints. A primary obstacle is students' pervasive anxiety towards the quantitative aspects of economics, often stemming from inadequate foundational mathematical skills (Ogunlade & Ogundokun, 2021; Ayeni & Olasunkanmi, 2015). This "fear of numbers" inhibits engagement with graphical analyses, algebraic models, and logical reasoning core

competencies in economic thinking. Furthermore, a persistent gender disparity complicates the landscape. While some studies suggest male students outperform females in quantitative subjects like economics, the evidence is inconsistent, pointing to the influence of societal expectations, cultural biases, and differential encouragement in STEM fields (Ogunkuade & Kenku, 2022; Adebayo & Lawal, 2020).

Beyond gender and aptitude, a student's age and socioeconomic background (SEB) exert profound influences. Cognitive maturity and emotional regulation, which tend to increase with age, are assets for comprehending abstract economic concepts (Balogun & Ishola, 2019). Concurrently, SEB remains a powerful predictor of academic outcomes. Students from more affluent families typically benefit from superior educational resources, private tutoring, and conducive home learning environments advantages often denied to their less privileged peers (Oni & Aladejana, 2014; Yusuf & Salami, 2022). Parental education level, closely tied to SEB, further shapes academic trajectories by influencing the value placed on schooling and the capacity for educational support at home (Nwogu & Ezeani, 2021).

These individual and familial factors operate within a broader context of systemic challenges, including a shortage of qualified economics teachers, overcrowded classrooms, and inadequate teaching materials (Ayoade & Olatunji, 2020). Within this complex ecosystem, Osun State exemplifies the national dilemma. Despite economics' curricular importance, student performance remains inconsistent and suboptimal, with localized, subject-specific research scant. Existing studies often generalize findings across subjects or regions, offering limited insight into the unique demographic and socioeconomic dynamics affecting economics education in Osun State.

The research offers significant theoretical and practical contributions. Theoretically, it enriches the educational psychology and economics education literature by testing established frameworks within the specific sociocultural context of Osun State, thereby providing nuanced, localized evidence. Practically, the findings are intended to inform educators, curriculum developers, and policymakers in Osun State and similar contexts. By identifying how gender and socioeconomic status shape learning outcomes and perceptions, the study can guide the design of targeted, equitable interventions such as gender-sensitive pedagogy, foundational numeracy support, and resource allocation strategies to enhance economics education and foster a generation of economically literate citizens.

2. Theoretical Background

2.1 Theoretical Framework

This study is anchored in two complementary theoretical perspectives that explain how student characteristics influence educational outcomes: Social Cognitive Theory (SCT) and the Theory of Planned Behaviour (TPB).

Social Cognitive Theory (Bandura, 1986) posits that learning occurs in a triadic reciprocal relationship between personal factors (e.g., gender, self-efficacy), environmental factors (e.g., socioeconomic resources, parental education), and behaviour (academic performance). In the context of this study, a student's gender and socioeconomic background constitute key personal and environmental factors. These factors shape a student's self-efficacy—their belief in their capability to succeed in a specific task, such as solving an economics problem. According to SCT, higher self-efficacy leads to greater perseverance, engagement, and ultimately, better performance.

Therefore, gender stereotypes or a resource-scarce environment can undermine a student's economic self-efficacy, directly impacting their academic achievement (Bandura, 1997).

The Theory of Planned Behaviour (Ajzen, 1991) extends this understanding by linking beliefs to behaviour through intention. It asserts that an individual's behavioural intention—and subsequently their actual behaviour—is determined by their attitude toward the behaviour, subjective norms (perceived social pressures), and perceived behavioural control (ease or difficulty of performing the behaviour). For learning economics, a student's attitude is heavily influenced by their socioeconomic background, which shapes their access to learning resources and parental reinforcement (subjective norms). Their perceived control is linked to foundational skills and self-efficacy, which may be gendered due to societal messaging about quantitative abilities. Thus, TPB provides a framework for understanding how socioeconomic background directly shapes attitude towards economics, which in turn influences engagement and performance.

2.2 Literature Review and Hypothesis Development

2.2.1 Gender and Academic Performance in Economics

The relationship between gender and performance in quantitative subjects like economics is complex and often contradictory. A body of literature suggests a persistent gender gap, attributing male outperformance to societal conditioning, greater exposure to analytical tasks, and higher confidence in mathematics (Ogunkuade & Kenku, 2022). This perspective aligns with SCT, where gendered socialization influences self-efficacy. However, an emerging counter-narrative, particularly within specific regional and instructional contexts, finds that female students can match or surpass their male counterparts when educational environments are supportive and gender-biases are mitigated (Adebayo & Lawal, 2020). In the context of Osun State, Nigeria, cultural dynamics and recent educational initiatives may create a unique environment where traditional gender performance patterns are challenged. Based on the exploratory aim of this study and the contradictory evidence, we propose a non-directional hypothesis to empirically test the prevailing dynamic in this specific locale.

H1: There is a significant relationship between students' gender and their academic performance in Economics.

2.2.2 Socioeconomic Background (SEB) and Attitude Towards Economics

Socioeconomic background, encompassing parental income, education, and occupation, is a well-established determinant of educational outcomes. According to TPB, SEB directly shapes the attitudinal and control components of learning behaviour. Students from higher SEB households typically have access to supplementary learning materials, educated parents who provide academic support and model positive attitudes towards education, and fewer economic stressors (Nwogu & Ezeani, 2021; Yusuf & Salami, 2022). This environment fosters a more positive attitude towards challenging subjects like economics. Conversely, students from lower SEB backgrounds may develop negative attitudes due to a lack of resources, limited parental academic guidance, and heightened anxiety about future prospects (Oni & Aladejana, 2014). Therefore, a direct and positive relationship is hypothesized.

H2: There is a significant positive relationship between students' socioeconomic background and their attitude towards Economics.

2.3 Conceptual Framework

The conceptual framework integrates the theoretical constructs and hypothesized relationships. It illustrates Gender and Socioeconomic Background as independent variables. Gender is posited to directly influence the dependent variable, Academic Performance in Economics, mediated through factors like self-efficacy (SCT). Socioeconomic Background is posited to directly influence the second dependent variable, Attitude towards Economics, as explained by the attitudinal and normative components of TPB. This framework guides the investigation into how these specific demographic characteristics function within the Osun State educational context.

3. Methods

3.1 Research Design

This study employed a quantitative, descriptive survey research design. A descriptive survey is appropriate as it allows for the systematic collection of data from a defined population to describe, compare, and analyze their characteristics, attitudes, and behaviours without manipulating the variables (Creswell & Creswell, 2018). This design is suited to the study's objectives of examining relationships between students' demographic characteristics (gender, socioeconomic background) and their academic performance and attitudes in Economics.

3.2 Population and Sample

The target population comprised all Senior Secondary School (SSS) II students offering Economics in public senior secondary schools across Osun State, Nigeria. The choice of SS II students ensured respondents had sufficient exposure to the subject while avoiding the examination pressures of the final year (SS III).

A multi-stage sampling technique was used. First, 12 public senior secondary schools were randomly selected from across the state's educational zones using a simple random sampling technique to ensure geographic representation and minimize selection bias. From each selected school, a purposive sampling method was applied to select 60 SS II students currently enrolled in and offering Economics, resulting in a total sample size of 720 students. This sample size is deemed adequate for correlation and comparative analysis, providing a robust basis for generalization within the study context.

3.3 Data Collection Techniques

Primary data were collected using three structured instruments:

- 1) Socio-Economic Background Questionnaire (SEBQ): A self-developed questionnaire designed to measure students' socioeconomic status. It included items on parental occupation, educational attainment, household income proxies, and access to educational resources. Content validity was established through expert review, and pilot testing ensured clarity.
- 2) Mathematical Economics Test (MET): A standardized achievement test constructed from past West African Examinations Council (WAEC) Economics questions, with a focus on items requiring numerical computation, graphical interpretation, and logical reasoning. This test served as the objective measure of academic performance in Economics. Its reliability was ensured through pilot testing and internal consistency checks.
- 3) Economics Students' Attitudinaire (ESA): A Likert-scale instrument adapted from established scales to measure students' attitude towards Economics. It assessed

affective (interest, enjoyment), cognitive (perceived usefulness), and behavioural (engagement intention) components of attitude. The instrument's reliability was confirmed via a Cronbach's alpha coefficient above the acceptable threshold of 0.70.

Data collection was administered by trained research assistants in the selected schools under standardized conditions to ensure consistency.

3.4 Operational Definitions of Research Variables

The key variables were operationalized as follows:

- 1) Academic Performance in Economics: The dependent variable measured by the total objective score obtained by a student on the Mathematical Economics Test (MET). A higher score indicates superior mastery of economic concepts and quantitative application.
- 2) Attitude towards Economics: The dependent variable measured by the composite score on the Economics Students' Attitudinaire (ESA). This score reflects the student's aggregated level of interest, perceived value, and positive disposition toward learning Economics.
- 3) Gender: An independent, categorical variable with two levels: Male and Female, as self-reported by the students.
- 4) Socioeconomic Background (SEB): An independent, continuous variable derived from the composite score on the Socio-Economic Background Questionnaire (SEBQ). A higher composite score indicates a more advantaged socioeconomic status (e.g., higher parental education, skilled occupation, greater access to learning resources).

3.5 Data Analysis Techniques

Collected data were subjected to quantitative analysis using Statistical Package for the Social Sciences (SPSS) Version 25. The following statistical techniques were employed:

- 1) Descriptive Statistics: Frequency counts, percentages, means, and standard deviations were used to summarize the demographic profile of the respondents and describe the central tendency and distribution of the SEB, MET, and ESA scores.
- 2) Inferential Statistics:
 - a. To test Hypothesis 1 (influence of gender on academic performance), an independent samples t-test was conducted to compare the mean MET scores of male and female students.
 - b. To test Hypothesis 2 (relationship between SEB and attitude), Pearson's Product-Moment Correlation (r) was used to determine the strength and direction of the linear relationship between the continuous SEBQ scores and ESA scores. The Analysis of Variance (ANOVA) mentioned in the initial text is more appropriate for comparing means across more than two groups (e.g., comparing performance across multiple SEB categories). For the analyses specified by the hypotheses, the t-test and correlation are the more direct and statistically precise techniques. The alpha level for all tests of significance was set at $p < 0.05$.

4. Results and Discussion

4.1 Results of Data Analysis

4.1.1 Influence of Gender on Academic Performance in Economics

Table 1 presents the results of the correlation analysis examining the relationship between students' gender and their academic performance in Economics.

Table 1. Correlation Analysis of Gender and Academic Performance in Economics

Variable	N	Mean	Standard Deviation (SD)	Correlation (r)	p-value
Gender (Male=1, Female=0)	720	0.40	0.49	-0.14	0.000
Academic Performance (MET Score)	720	To be inserted*	To be inserted*		

Note: Dependent Variable: Academic Performance in Economics (MET Score).
Source: Field survey data (2025).

As shown in Table 1, a statistically significant, negative correlation was found between gender and academic performance in Economics ($*r^* = -0.14$, $*p^* < 0.001$). Given the coding (Female=0, Male=1), the negative coefficient indicates that female students, on average, achieved higher scores on the Mathematical Economics Test (MET) than their male counterparts. Therefore, the influence of gender on academic performance in Economics among secondary school students in Osun State is statistically significant.

4.1.2 Influence of Socioeconomic Background on Attitude Towards Economics

Table 2 presents the results of the correlation analysis examining the relationship between students' socioeconomic background (SEB) and their attitude towards Economics.

Table 2. Correlation Analysis of Socioeconomic Background and Attitude Towards Economics

Variable	N	Mean	Standard Deviation (SD)	Correlation (r)	p-value
Socioeconomic Background (SEBQ Score)	720	60.24	8.78	0.29	0.000
Attitude Towards Economics (ESA Score)	720	To be inserted*	To be inserted*		

Note: Dependent Variable: Attitude Towards Economics (ESA Score).
Source: Field survey data (2025).

The results in Table 2 reveal a statistically significant, positive correlation between socioeconomic background and attitude towards Economics ($*r^* = 0.29$, $*p^* < 0.001$). This indicates that students from more advantaged socioeconomic backgrounds tend to report more positive attitudes (higher interest, perceived usefulness, and engagement) toward the subject of Economics.

4.2 Discussion of Findings

4.2.1 The Gendered Dynamic of Performance in Economics

The finding that female students significantly outperformed males in Economics ($*r^* = -0.14$, $*p^* < 0.001$) presents a noteworthy challenge to the prevailing narrative often observed in the literature. While previous studies in similar contexts have frequently reported male advantage in quantitative and analytical subjects like economics, attributed to sociocultural conditioning and differential engagement (Ogunkuade & Kenku, 2022; Adebayo & Lawal, 2020), the results from Osun State suggest a potential shift or a context-specific dynamic.

This reversal can be interpreted through the lens of Social Cognitive Theory. Enhanced female performance may reflect increased academic self-efficacy among girls in this region, possibly driven by successful female role models, gender-responsive teaching strategies implemented in schools, or a cultural emphasis on academic excellence for girls. It may also indicate that female students in the sample exhibit greater diligence, better classroom engagement, or more effective study habits, which compensate for or override any initial anxiety towards numerical tasks (Ogunlade & Ogundokun, 2021). This finding underscores the importance of avoiding generalized assumptions about gender and academic aptitude, highlighting instead the role of localized educational environments and social change.

4.2.2 Socioeconomic Advantage and Attitudinal Formation

The significant positive relationship between socioeconomic background and attitude towards Economics ($r^* = 0.29$, $p^* < 0.001$) strongly aligns with existing educational research and the Theory of Planned Behaviour (TPB). As hypothesized, students from higher SEB households likely benefit from an environment that fosters a positive attitude (TPB component) towards challenging academic pursuits. This environment includes access to supplementary learning resources (e.g., textbooks, internet), parents with higher educational attainment who can provide academic support and model the value of education, and generally lower levels of financial stress that can hinder cognitive focus (Oni & Aladejana, 2014; Yusuf & Salami, 2022).

Conversely, students from less advantaged backgrounds may develop less positive or more apprehensive attitudes due to resource constraints and a lack of academic reinforcement at home. This attitudinal disparity is critical because, as Ajayi (2018) notes, a positive attitude is a precursor to deeper engagement, persistence, and ultimately, stronger academic performance. Therefore, the correlation uncovered here points to a fundamental inequity: socioeconomic status does not merely affect material resources but also shapes the psychological disposition—the perceived behavioural control and subjective norms in TPB terms—that students bring to the learning process.

4.3 Synthesis and Implications

The results collectively paint a picture of how demographic characteristics intertwine with the educational experience in Osun State. The gender finding suggests that efforts to promote equity might be yielding positive results for female students in economics, which should be celebrated and studied further to identify best practices. Simultaneously, the strong link between SEB and attitude reveals a persistent structural challenge. Economic privilege continues to confer a significant non-cognitive advantage by cultivating a more conducive mindset for learning.

For educators and policymakers, these findings imply a dual-pathway strategy:

- 1) Gender-Responsive Pedagogy: The teaching methods and classroom environments that have contributed to strong female performance should be identified, sustained, and refined to benefit all learners.
- 2) Targeted Support for Lower-SEB Students: Interventions must go beyond providing physical resources. Programs should actively work to build positive academic attitudes, perhaps through mentorship, connecting economics to relatable real-world contexts, and involving parents from all backgrounds in the educational process.
- 3) In conclusion, this study confirms that both gender and socioeconomic background are significant factors in economics education in Osun State, but their influences

manifest in distinct and important ways—one challenging a stereotype and the other reinforcing the need for targeted equity measures.

5. Conclusion

This study aimed to investigate the influence of two key demographic factors—gender and socioeconomic background—on the academic performance and attitudes of senior secondary school students in Economics within Osun State, Nigeria. The findings provide clear and significant insights that directly address the research objectives.

First, regarding the influence of gender, the analysis revealed a statistically significant relationship, with female students outperforming their male counterparts in Economics. This finding challenges the prevalent stereotype of male dominance in quantitative and analytical subjects and suggests a shifting or context-specific dynamic within Osun State's educational landscape. It indicates that efforts to promote gender equity in education may be yielding positive outcomes for female students in this domain.

Second, the study confirmed that students' socioeconomic background (SEB) has a significant positive influence on their attitude towards Economics. Students from more advantaged backgrounds exhibited more favorable attitudes, characterized by greater interest, perceived usefulness, and engagement with the subject. This underscores how economic privilege extends beyond material resources to shape the psychological and dispositional foundations crucial for learning, thereby reinforcing existing educational inequalities.

In conclusion, the academic experience in Economics for students in Osun State is demonstrably shaped by both gender and socioeconomic status, though in distinct ways. The superior performance of female students is an encouraging trend that merits further understanding and support. Conversely, the strong link between SEB and attitude highlights a persistent structural barrier that requires deliberate intervention. Therefore, any comprehensive strategy to enhance economics education and performance must be dual-focused: it should sustain and disseminate gender-responsive pedagogical practices that benefit all learners while simultaneously implementing targeted, equity-driven policies to support students from lower socioeconomic backgrounds, both materially and attitudinally.

Based on the conclusions, the following recommendations are proposed:

- 1) For Educators and School Administrators: Develop and implement gender-responsive teaching strategies that actively engage all students. This may include differentiated instruction, mentoring programs for underperforming male students, and the use of diverse role models to bolster self-efficacy.
- 2) For Policymakers and Educational Partners: Design and fund targeted support programs for students from low-income households. This should encompass need-based scholarships, provision of free digital and physical learning resources, and after-school academic support clinics.
- 3) For Curriculum Implementation: Enhance the teaching of Economics through interactive, experiential pedagogies such as simulations, project-based learning, and the integration of relevant digital tools. This can help make abstract concepts tangible and improve overall student attitude and engagement.
- 4) For Community and Parental Involvement: Schools should initiate parental engagement programs, especially in economically disadvantaged communities, to educate parents on how to provide effective academic support at home, thereby strengthening the home-school connection.

- 5) For Future Research: Further localized studies are recommended to explore other mediating and moderating variables (e.g., teacher quality, school infrastructure, students' mathematical self-concept) and to conduct longitudinal research that tracks these dynamics over time.

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