



## FINANCIAL DISTRESS AND DEMOGRAPHIC PROFILE AS PREDICTORS OF GENERAL WEIGHTED AVERAGE OF FIRST-GENERATION COLLEGE STUDENTS AT CEBU INSTITUTE OF TECHNOLOGY-UNIVERSITY

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**Abstract** - *Academic performance is vital in education, and it is evaluated through marks and goals set by students and teachers, often measured by general weighted averages (GWA). First-generation college students (FGCS) of various demographic backgrounds face challenges like financial distress impacting their academic performance and overall academic journey. This study aimed to determine the influence of demographic profile and financial distress on the general weighted average of first-generation college students at Cebu Institute of Technology-University for the academic year 2023 to 2024. It addressed the gaps in understanding how demographic factors and financial distress impacted the academic success of first-generation college students. Participants were 68 first-generation college students (FGCS) identified through complete enumeration. The research utilized a researcher-made Demographic Profile Questionnaire, the InCharge Financial Distress/Financial Well-Being (IFDFW) Scale, and the GWA during the first semester of the academic year 2023 to 2024. Findings showed that most students were predominantly female, aged 18 to 20, and from lower-middle-income families. Financial distress levels varied, with a majority reporting moderate. Most first-generation college students achieved a “very good” GWA classification, reflecting good academic performance. Analysis indicated a significant model with financial stress and demographic profile as predictors of the GWA of the FGCS. This study’s recommendation highlights the need for support services, inclusive campus cultures, and comprehensive strategies to address financial distress among these students.*

**Keywords:** *first-generation college students, general weighted average, financial distress, demographic profile*

### Introduction

In education, academic performance plays a crucial role. It is assessed through various school assessments and exams, commonly measured by the general weighted average (GWA) of the students (Rono et al., 2014). However, GWA can also reflect students’ challenges, particularly first-generation college students (FGCS) whose parents did not complete a four-year college degree. These challenges impact their access to resources and financial support in higher education (Terenzi et al., 1996). Many FGCS had to become financially self-sufficient, often working to cover schooling and living costs due to lower academic preparedness (Jehangir, 2009). They also have lower graduation rates and are less likely to engage in supportive college activities, such as



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group study and faculty interaction (Engle & Tinto, 2008). Financial distress is a significant challenge, resulting in difficulties meeting financial obligations and negatively impacting academic performance among FGCS (Northern et al., 2010; Borden et al., 2008). Research highlights a link between financial distress and first-generation status, associated with poor academic outcomes and mental health issues (Potter et al., 2020). As such, being in a first-generation status significantly affects their academic journey, with limited family support increases the need for extra assistance in navigating higher education for these vulnerable students compared to their non-FGCS counterparts (Narad & Abdullah, 2016).

While substantial research exists on the impact of financial distress on academic performance, a notable gap persists, especially in the Philippines. Few studies have specifically examined the factors affecting the GWA of first-generation college students. Hence, this study aims to describe the demographic profile of the FGCS in terms of age, gender preference, and estimated monthly family income. It then assesses their level of financial distress and general weighted average. Lastly, this study investigates the influence of the demographic profile and financial distress on the general weighted average of FGCS. The present study aims to move toward a more comprehensive understanding of the factors influencing the academic performance of first-generation college students at Cebu Institute of Technology-University, ultimately contributing to their success.

## Methods and Materials

This study employs a descriptive-predictive survey design to examine the influence of demographic profiles and financial distress on the general weighted average of first-generation college students at the Cebu Institute of Technology-University. Respondents are included in the study based on the following criteria: (a) having an FGCS status, which requires that either of their parents did not finish a four-year college education; (b) enrolled at the university for the second semester of the academic year 2023 to 2024; and (c) 18 years or older. A pre-survey was conducted on programs within the Department of Humanities and Behavioral Sciences to identify eligible respondents. This led to a complete enumeration covering all 68 respondents with first-generation status. Furthermore, a researcher-made demographic profile questionnaire evaluated the respondents' age, gender preference, and estimated monthly family income.

In contrast, the respondents' GWA was derived from their first-semester grades for the academic year 2023 to 2024. At the same time, financial distress was measured using the InCharge Financial Distress/Financial Well-Being (IFDFW) Scale, which included a self-report questionnaire to gauge the extent of financial distress experienced by individuals, reflecting responses along a continuum from the highest level of financial well-being to the lowest level of financial distress (Prawitz et al., 2006). Before data gathering, permission was obtained from the authors to utilize the scale, and a pilot test with a norm group of first-generation status respondents was conducted, which has Cronbach's alpha reliability of 0.810, ensuring its appropriateness for the study.

## Results and Discussion

The data reveal the diverse demographic profiles of first-generation college students. Table 1 shows the largest group comprises those aged 18 to 20 years (33, 48.53%), followed by students aged 21 to 23 years (31, 45.59%), while the smallest group consists of those aged 24 to 26 years (4, 5.88%). This trend aligns with findings from Ishitani (2006), which suggest that younger FGCS often enroll in more significant numbers due to improved access to resources and support

initiatives encouraging underrepresented populations to pursue higher education. This initial spike in enrollment could be attributed to a combination of enthusiasm for attending college and positive family influence. However, as these students advanced through their academic journey, they likely faced numerous challenges that affected their ability to complete their education, revealing a decline in retention rates as FGCS aged (Kim et al., 2021). Furthermore, most respondents were female (49, 72.06%), with a small proportion (2, 2.94%) identifying as non-binary. Kim et al. (2021) found that more female FGCS attended college than their male counterparts, leading to a higher population of female first-generation status. Consequently, this pattern was attributed to males favoring work over education. Moreover, the inclusion of non-binary individuals highlights the presence of gender diversity among FGCS.

**Table 1.** Demographic profile of the respondents

<b>Demographic Profile</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
<i>Age</i>		
18-20 years old	33	48.53%
21-23 years old	31	45.59%
24-26 years old	4	5.88%
Total	68	100.0%
<i>Gender Preference</i>		
Male	17	25.0%
Female	49	72.06%
Non-binary	2	2.94%
Total	68	100.0%
<i>Estimated Monthly Family Income</i>		
Less than 9,100.00	5	7.35%
9,100.00 to 18,200.00	14	20.59%
18,200.00 to 36,400.00	21	30.88%
36,400.00 to 63,700.00	15	22.06%
63,700.00 to 109,200.00	10	14.71%
109,200 to 182,000.00	2	2.94%
Above 182,000.00	1	1.47%

Total	68	100.0%
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In contrast, most participants (21, 30.88%) came from families with a monthly income between Php 18,200.00 and Php 36,400.00, while fewer belonged to families earning over Php 109,200.00. This suggests that most FGCS hail from low-income backgrounds. The FGCS reflects a range of socioeconomic circumstances and highlights the necessity of fostering a campus culture that prioritizes diversity and promotes social mobility (Crews, 2019). The findings suggest that FGCS may struggle with everyday expenses such as allowances, transportation, and project costs, making it a consistent challenge. They might also face difficulties meeting tuition payment deadlines (Wattley, 2020). Overall, the financial challenges faced by FGCS highlight the need to implement support mechanisms to reduce financial barriers to higher education. Such initiatives could include scholarships specifically for FGCS, financial aid programs, and tailored resources designed to assist them in achieving academic success, acknowledging that FGCS often need specialized support services and interventions (Harper, 2020).

**Table 2.** Frequency distribution of the levels of financial distress

Levels of Financial Distress	Frequency ( <i>f</i> )	Percentage (%)
High	26	38.24%
Moderate	40	58.82%
Low	2	2.94%
Total	68	100.0%

Table 2 indicates a significant prevalence of high levels of financial stress, with 26 participants (38.24%) reporting it. In contrast, a small group of 2 participants (3.88%) reported low financial distress, indicating they had minimal financial burdens and maintained a stable financial situation. However, the majority, 40 participants (58.82%), experienced moderate financial stress, reflecting an ongoing trend of financial concerns without reaching extreme distress. This situation can often lead to difficulties for first-generation college students as their limited resources affect financial distress, impacting their overall functioning and requiring time to regain stability. Although this financial strain is notable, FGCS manages its financial obligations despite occasional hardships. Additionally, first-generation college students may respond to financial distress in various ways, including feelings of anxiety, pressure, resilience, resourcefulness, and determination (Potter et al., 2020; Bernardo & Resurreccion, 2018).

**Table 3.** Frequency distribution of the general weighted average

General Weight Average	Equivalent	Frequency ( <i>f</i> )	Percentage (%)
5.0 – 4.8	Excellent	0	0.0%
4.7 – 4.1	Very Good	38	55.88%
4.0 – 3.5	Good	21	30.88%

3.4 – 3.0	Fair	6	8.82%
1.0	Failed	3	4.41%
Total		68	100%

Table 3 indicates that most respondents (38, 55.88%) fell within the “Very Good” range of GWA, suggesting that most FGCS excelled academically. In contrast, a smaller proportion (6, 8.82%) was classified as Fair, while an even lesser number (3, 4.41%) were categorized as Failed. These findings suggest that the respondents performed well despite financial challenges, demonstrating their commitment and effort to meet academic requirements to achieve significant success at the institution. This reinforces the academic potential and capabilities of FGCS, challenging any assumptions about their readiness or abilities. It aligns with the findings that FGCS generally report higher satisfaction with their college peers, more remarkable learning advancements, and an enhanced capacity to overcome challenges (Watkins & Beresin, 2021). It suggests that FGCS frequently thrived in their studies due to their strong motivation and determination to succeed, fueled by a wish to enhance their circumstances and seize opportunities. Their resilience, honed through various challenges, allowed them to work harder despite financial pressures.

**Table 4.** Weighted least squares coefficients for predicting general weighted average  
**Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.950	.616		4.787	<.001
Age	.074	.033	.354	2.229	.030
Financial Distress	-.095	.023	-.615	-4.061	<.001
Gender					
Female	.016	.173	.012	.093	.926
Non-binary	-.610	.603	-.119	-1.012	.316
Family Income Classification					
Low income	-.194	.248	-.091	-.782	.437
Lower middle	.045	.125	.054	.363	.718
Middle middle	.127	.229	.068	.556	.580

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Upper middle	.162	.314	.061	.515	.609	
Upper class	-.041	.285	-.018	-.145	.885	

Table 4 presents the findings from a regression analysis, including unstandardized and standardized coefficients for each variable. The analysis revealed that age, with a *p*-value of 0.030, significantly predicts GWA in first-generation college students. This underscores the varying needs within the FGCS demographic, ranging from financial challenges to balancing academic obligations with personal life. Recognizing age-related factors influencing academic performance, educators and support services can better address the unique hurdles FGCS encounter at different points in their college experience (LeBouef & Dworkin, 2021). Furthermore, financial distress is another critical predictor of GWA, with a *p*-value of 0.001, indicating a negative correlation between financial stress and GWA. The analysis showed that their GWA tends to decline as financial distress among FGCS escalates. This suggests that financial distress negatively impacts the academic performance of the respondents. Notably, many FGCS come from economically disadvantaged backgrounds, which limits their access to critical resources like technology, which is increasingly necessary for academic success (Bennett et al., 2021). Acknowledging the detrimental link between financial stress and GWA for FGCS highlights the necessity for specialized support services. Ultimately, it emphasizes that alleviating financial difficulties faced by first-generation college students demands comprehensive support systems that provide resources, guidance, and mental health services to address these issues and enhance academic outcomes effectively.

**Table 5.** Weighted least squares summary for predicting the general weighted average  
**Model Summary**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Change Statistics		
					R <sup>2</sup> Change	F Change	Sig. F Change
1	.520 <sup>a</sup>	.271	.158	1.87302	.271	2.394	.022

a. Predictors: (Constant), Upper middle class income, Female, Upper class income, Low income, Middle middle, Lower middle, Non-binary, Financial Distress, Age

b. Dependent Variable: GWA

c. Weighted Least Squares Regression - Weighted by weight

The table shows that the model explains about 27.1% of the variability in GWA. The model is statistically significant, but the adjusted R<sup>2</sup> value suggests some caution is needed to interpret the results. FGCS experiencing financial difficulties may face additional stress and challenges, negatively impacting their academic performance. This could lead to lower GWA, while demographic factors like gender preference, age, and family income can influence their academic performance in various ways. FGCS from lower socioeconomic backgrounds may have limited access to educational resources, which could affect their GWA. Additionally, gender disparities and age-related factors can also play a role. Overall, it is essential to consider the limitations of the study. While the study identifies predictive relationships, it may not capture the full complexity of



factors. Hence, further research could explore additional variables, such as learner motivation, teaching methods, or institutional factors, to improve the model's predictive accuracy.

## Conclusion

In conclusion, demographic profiles, particularly age and financial stress, emerge as significant predictors of the general weighted average (GWA) among first-generation college students (FGCS). However, other demographic factors, such as gender and estimated family monthly income, may not have statistically significant coefficients; they contributed to the overall model's predictive power.

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