

The Paradox of Free Higher Education: Examining the Impacts of No-Cost College Policy

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Abstract

Globally, there has been a concerted effort to implement free tertiary education in public universities and colleges. This study conducts a systematic literature review to examine existing evidence on the impact of free college education policies. Preliminary findings indicate that the removal of tuition fees enhances access to higher education, with increased enrollment emerging as the most notable effect. However, challenges persist, particularly concerning student retention, degree completion rates, and equitable access for individuals from low socioeconomic backgrounds. Moreover, several studies highlight the necessity of critically assessing the criteria for implementing such policies, given the substantial financial investment required from governments. Without careful planning and regulation, these policies may be subject to inefficiencies and unintended consequences.

Keywords: education policy, higher education, free college education

Introduction

The provision of free access to higher education has been a major policy initiative in many countries, driven by the recognition of its economic and social benefits for individuals and societies (Chan, 2016). Free college education policies are primarily designed to remove financial barriers, particularly for students from low socioeconomic status (SES) backgrounds, thereby fostering greater access to tertiary education. These policies are often justified by the

belief that increasing college attendance can enhance workforce development, reduce income inequality, and contribute to overall economic growth. However, critics argue that poorly designed and implemented free college policies may exacerbate existing equity issues due to ineffective targeting and resource allocation (Chingos, 2016; Jones & Berger, 2018; Perna et al., 2018; Perna et al., 2021).

One of the most persistent criticisms of universal free college policies is their limited impact on student success beyond initial enrollment. Research indicates that while tuition-free initiatives can lead to higher postsecondary participation rates, they do not always translate into improved retention or completion rates (Garriga et al., 2024). The absence of robust student support services, such as academic advising and financial aid for non-tuition expenses, can hinder students, particularly those from disadvantaged backgrounds, from completing their degrees. This raises concerns about whether free college policies genuinely fulfill their intended goal of expanding educational opportunities and social mobility.

Despite these challenges, governments worldwide continue to explore and implement variations of free college programs in an effort to make higher education more accessible. The growing movement towards tuition-free tertiary education has been particularly evident in both high-income and upper-middle-income countries, as well as in some lower- and middle-income countries (LMICs). These initiatives vary in scope, with some models targeting only low-income students and others offering broader tuition-free access to all eligible students. However, a critical gap remains in assessing the long-term outcomes of these policies, particularly in terms of labor market integration, economic sustainability, and institutional quality.

Given the increasing global attention to free college education policies, it is imperative to conduct a comprehensive review of their impact. Many existing studies focus on specific

national or regional contexts, leaving room for broader cross-country comparisons that could provide deeper insights into the overall effectiveness of these policies. This systematic review aims to address this gap by synthesizing evidence from multiple contexts to offer a holistic assessment of the implications of free college education.

The following sections will outline the current global landscape of free college policies, providing a historical overview of their implementation. The methodology section will then detail the systematic approach used to select and analyze relevant research studies. Subsequently, the findings from the thematic analysis will be presented, followed by a discussion of policy implications and recommendations for future research directions.

Free College Education Policy-A Global and Historical Overview

Many countries have implemented free college education, recognizing the immense contribution of investment in human capital to nation-building. Table 1 depicts the list of countries with no-cost tertiary public education, geographic regions, and income classification (World Bank 2024). Of the identified countries that implement a free tertiary education policy, more than 50% belong to the high-income group.

Table 1.

Countries/States with Free College Education

Country/States	Region	Classification	Notes
Argentina	South America	Upper Middle	Since 1949
Australia	Australia	High	From 1974 until 1989
Brazil	South America	Upper Middle	Since 1934
Chile	South America	Upper Middle	Since 2016
Colombia	South America	Upper Middle	Since 2024
Denmark	Europe	High	Since 1940s
Ecuador	South America	Upper Middle	Since 2008
Egypt	Africa	Lower	Since 1962
Finland	Europe	High	Since 1974

France	Europe	High	Since 1968
Germany	Europe	High	Since 1971
Greece	Europe	High	Since 1975
Iceland	Europe	High	Since 1911
Ireland	Europe	High	Since 1995
Iran	Asia	Upper Middle	Since 1979
Kenya	Africa	Lower Middle	Since 1963
Malta	Europe	High	Since 1988
Mauritius	Africa	Upper Middle	Since 1988
Morocco	Africa	Lower Middle	Since 1990s
New Zealand	Australia & Oceania	High	Since 1939
Nigeria	Africa	Lower Middle	Since 1983
Norway	Europe	High	Since 2001
Panama	North America	High	Since 2014
Philippines	Asia	Lower Middle	Since 2017
Poland	Europe	High	Since 1945
Slovenia	Europe	High	Since 2005
Sri Lanka	Asia	Lower Middle	Since 1945
Syria	Asia	Lower Middle	Since 1970
Sweden	Europe	High	Since 1977
Trinidad and Tobago	North America	High	Since 1976
Turkey	Asia	Upper Middle	Since 2012
United Kingdom (England)	Europe	High	From 1962 until 1998
United Kingdom (Scotland)	Europe	High	Since 2000
United States**	North America	High	Varies by states
Uruguay	South America	High	Since 1955
Zambia	Africa	Lower Middle	Since 2012

Source: Various references

**Classification from the World Bank Open Data 2024,*

<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-group>.

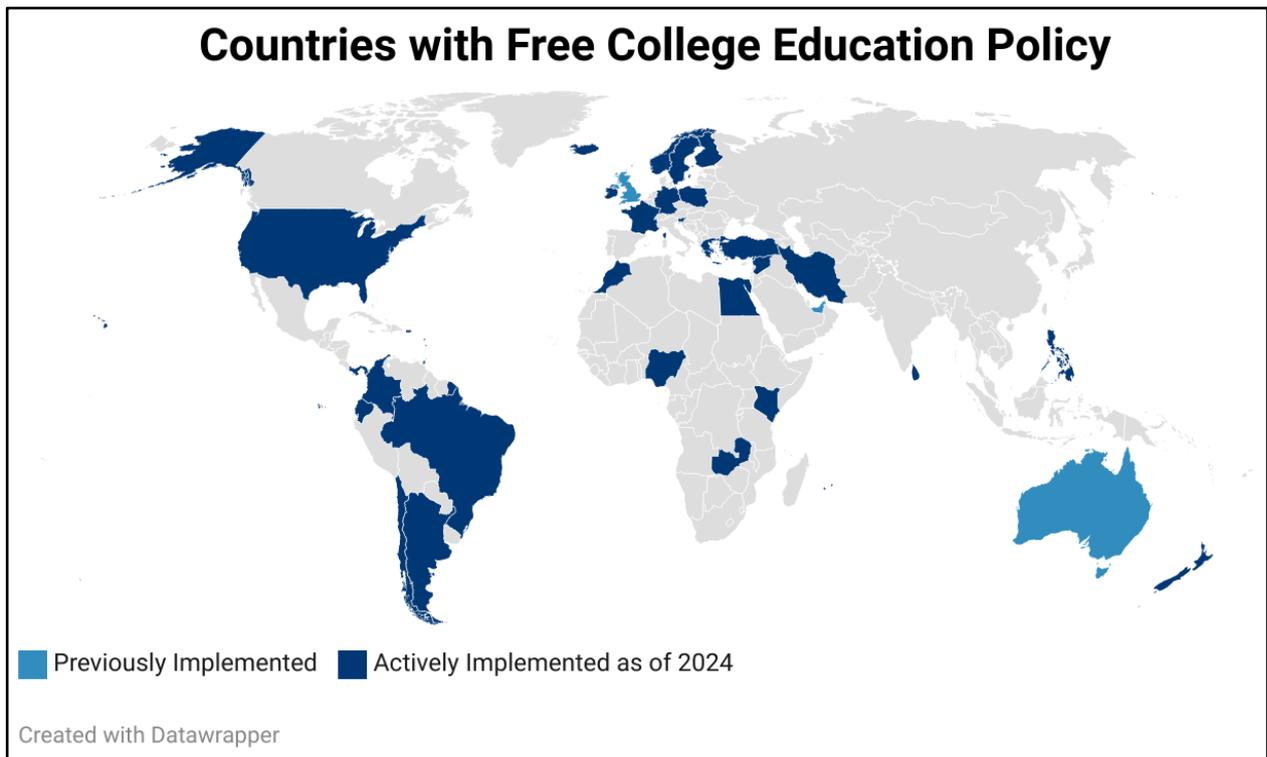
***In the United States, several states have free college education in the form of college promise programs*

The earliest implementation of the free college policy can be traced to Brazil, which started providing tuition-free attendance to universities in the early 1930s (Duryea et al., 2023). Many countries, particularly those in Europe, followed through and offered free college after the Second World War, which continues to the present. Recently, some LMICs have also started introducing tuition-free higher education. For example, the Philippines passed the

Republic Act 10973, otherwise known as the “Universal Access to Quality Tertiary Education Act,” which provides that all students in state universities and colleges shall have the opportunity to attend college without the financial burden of paying tuition and other fees (GOP 2017).

While free college policies are gaining traction globally, some countries have already abolished them mainly due to funding constraints and sustainability issues. Examples are the cases of England (United Kingdom) and Australia, where free college education lasted for only 24 and 15 years, respectively, until the government-imposed cost-sharing schemes to address issues with insufficient funding. Despite the initial backlash, studies proved that the move from providing free tuition positively impacted England, with enrolment rates doubling and a 5% increase in participation of students from the low SES (Murphy et al., 2017).

Even with the documented drawbacks of free higher education, most countries are still implementing the policy amidst the tradeoffs. For instance, it is important to note that free higher education heavily depends on government funding, which is almost always limited, resulting in limited seats that can be financially supported. The Finnish program is a good example of this trade-off, where only a handful of applicants can get in as a result of the quota set by the government for students who will receive a free college education, and as a consequence, the country ranks in the bottom among the developed countries in higher education attainment (Delisle & Cooper 2019). With all its benefits and drawbacks, the free college policy is still a firm commitment for many countries. Therefore, collecting the existing evidence on its long-term impacts across various contexts helps ensure equitable and sustainable free college policies.

Figure 1.*Global Map of Free College Education Policy*

Methodology

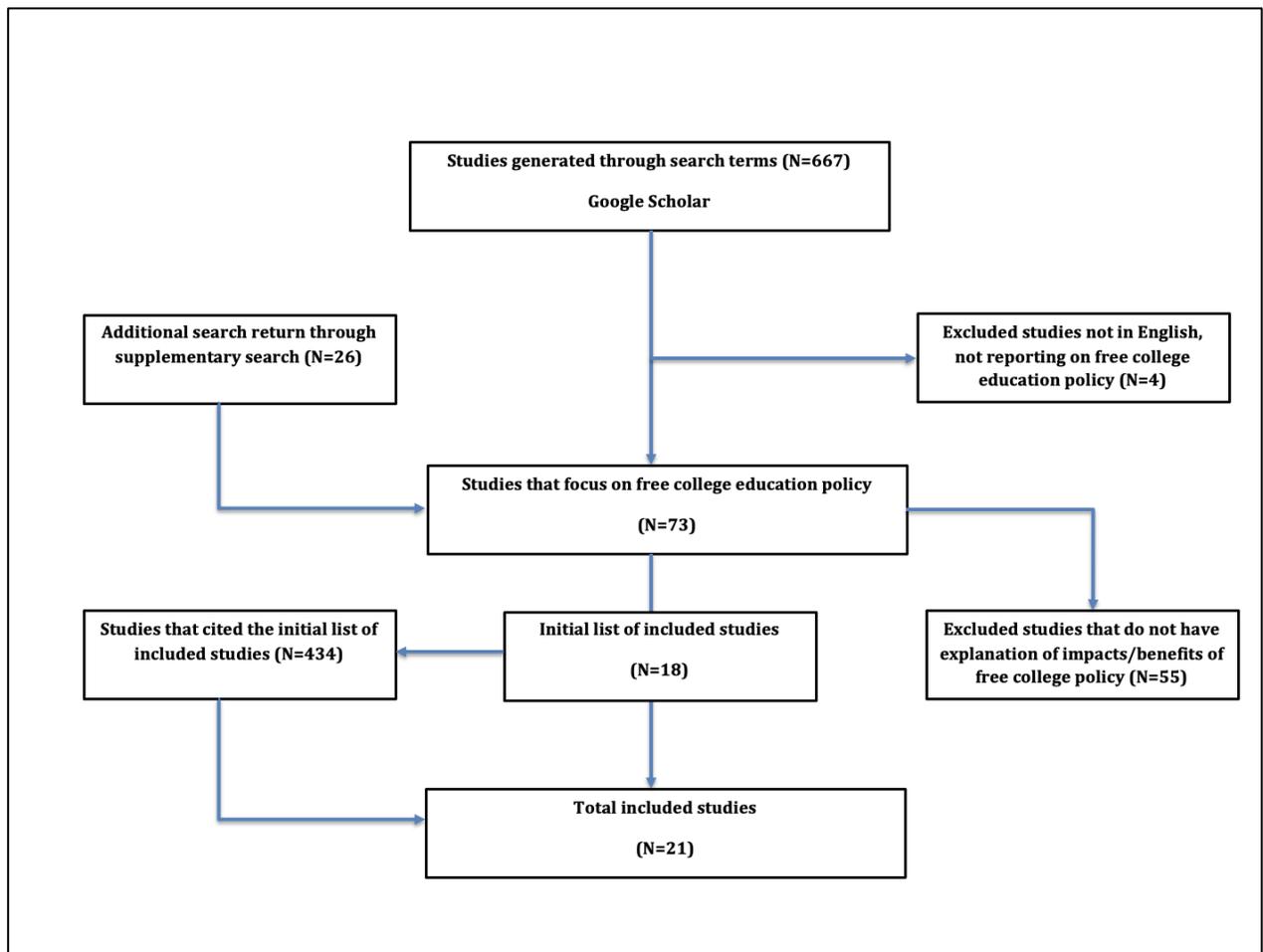
The study used a systematic literature review approach to collect evidence of the impacts of free college education worldwide. Using Google Scholar, the researcher used the following search phrases to obtain the initial list of the studies: “free tertiary education, free college attendance,” and “tuition-free college.” The search did not impose a specific limit on the publication dates in the peer-reviewed journals, conference proceedings or working papers. The search was conducted between September and December 2024. Figure 1 depicts the overview of the search process and the results of the combined searches.

The initial results of a Google Scholar search using the keywords yielded a combined result of 667, with varying focus on studies about free higher education. Using additional limiting keywords such as “impact” narrowed the pool to 42 studies, the keyword “benefit”

added 27, and the keyword “effect” produced 4 studies for a combined pool of 73 studies. The next step is to manually sift through the pool of 73 studies according to their title and abstract. Finally, 22 studies fit all the requirements for the intended analysis.

Figure 2.

Diagram of the Search and Review Process of Eligible Studies



Source: Author’s illustration based on study’s methodology

Overall, the selected studies were included through the selection criteria:

- Studies that focus on free higher education
- Include findings on the effect, impact or benefit of tuition-free college education

- With discussion on a country or a specific locality
- Published in English

After the elimination process from the review of the title, abstract and quick scan through the results of the shortlisted studies, the included papers come from North America (7), East Asia and the Pacific (5), South America (5), Middle East and North Africa (3), and Sub-Saharan Africa (1). Working papers are not included in the analysis, given that these papers specifically cautioned against citation and require further finalization.

Table 2.

List of Studies Included in the Review

Country/State of Focus	Publication Year	Authors
Australia	2024	Cui, Y.
Brazil	2023	Duryea, et al.
Chile	2021, 2023	Carpentier, et al.; Espinoza, et al.
Colombia	2024	Ferreya, et al.,
Ecuador	2012, 2021	Ponce and Loayza, Guerrero, et al.
Egypt	2012, 2021	Assaad; El-Gerby
Ireland	2021	Delisle & Hauptman
New Zealand	2018	Nikula & Matthews
Syria	2024	Tozan
United Kingdom (Scotland)	2014	Campbell
USA (Focus on community colleges)	2020	Lau
USA (Michigan)	2017, 2023	Dynarski, et al.; Martinez et al.
USA (Milwaukee, Wisconsin)	2024	Anderson, et al.
USA (New Haven, Connecticut)	2016	Daugherty and Gonzales
USA (New York)	2019	Nguyen
USA (Tennessee)	2019	Meehan, et al.
Zambia	2023	Machinyise, et al.

Findings

The results of the initial analysis of the systematic literature review reveal major themes emanating from examining the impact of free tertiary education. I identified the most prevailing

themes of the studies and provided a mapping of identified themes common among the corpus (Table 3). Also, the analysis revealed some specific cases of unintended consequences of the free college policy. ANNEX A provides a detailed mapping of the themes from the studies.

Increased College Attendance

As these free college programs were inherently aimed at increasing the rate of participation in higher education, it should be expected that the most significant effect will be on increased college attendance. Most of the studies pointed out the significant contribution of the free college program in increasing college attendance, reflecting the effectiveness of scholarships to attract would-be tertiary education students. The effect is highly noticeable in contexts where there is traditionally low uptake of college enrolment, as in the case of Australia, which saw an increase of more than double in total enrolment after the passage of the free college policy in 1979 (Cui 2024). In the United States, successful cases were reported from the examples of Tennessee, Milwaukee, Wisconsin and Oregon using the promise programs that significantly increased the total state enrolments after the implementation of the policy (Anderson et al., 2024; Daugherty & Gonzales, 2016; Meehan et al., 2019).

Only the study by Nguyen (2019) found that the free college policy does not affect enrolment in higher education, as reflected in the case of New York's program. One possible explanation for the null effects is the program's lack of information drive to attract more students, given that it was still in its initial years of implementation in contrast to relatively older and more successful programs like the Tennessee Promise (Nguyen 2019). Overall, the free college policy has seen significant contributions in increasing participation in higher education and given the sustained attention given to the policy, it will likely continue to attract more students to attend college.

Equitable Access-Almost

The second, but arguably more important selling point of free college education policy is to promote equitable access to tertiary education, focusing on increasing opportunities for low-SES students. However, regarding access for students from different SES, there is a consensus that free college policy can inadvertently lead to inequitable access, disfavoring students from low-income households. One notable example of this inequity is the case of Argentina, where 72% of the total enrollment rates come from upper- and middle-income families (Adorgué & Garcia de Fanelli, 2018). This trend is not isolated to Argentina, as similar patterns can be seen in other countries where free college programs fail to sufficiently address the root causes of inequity. For instance, attending college, even if free of cost to Egyptian students, was also found to be dominated by high-income households (El-Gerby, 2012). This huge disparity is attributed to students from high SES having better preparations to pursue higher education, given their advantages in social capital, access to private tutoring, and familiarity with the higher education system (Assaad, 2010; Carpentier et al., 2021). These students often have access to resources that help them navigate the complexities of the college application process and thrive in academic environments, while low-SES students face challenges that extend beyond tuition costs, such as insufficient academic preparation, limited access to extracurricular activities, and less exposure to higher education role models.

If not given timely solutions, the inequity in access will further widen the gap between low and mid/high SES students. In an earlier study by Ponce and Loayza (2012), Ecuador's initial implementation of free tertiary education policy was found to be non-progressive, with no effect on increasing participation from low-SES students. This was later updated by Guerrero et al. (2019), reporting that the conditions worsened for low-income students, with the policy found to increase access for students with better socioeconomic conditions. The

Ecuadorian experience suggests that free college policy should have better-targeted implementation, with the lack of policy adjustments leading to further education inequity. A more intentional approach, such as increasing outreach to low-SES communities, offering academic support for underprepared students, and addressing the financial challenges beyond tuition, is needed to ensure that these policies benefit all students equitably.

Free college policies also affect older students differently than those who join college straight out of secondary education. Most of the programs have been designed to encourage traditional-age students, or those who just finished high school and are on track to enter college as the logical next step. In contrast, only a few free college programs were designed to include older students who might have graduated several years before pursuing tertiary education. The age limit requirement as eligibility criteria proves inequitable, as the share of older students aged 25 and above enrolling in college has stayed at least 40% since the 1990s (Jones & Berger, 2018). This disparity in access between different age brackets of students reflects the delimiting power of eligibility criteria, which may unintentionally exclude individuals who have the desire and potential to pursue higher education later in life, whether for career advancement, personal growth, or skills development. Additionally, older students often bring unique experiences and perspectives that can enrich the academic environment, and restricting their access to free college programs limits the opportunity for a more diverse and inclusive educational experience. This further justifies the need to redesign the existing selection process for free college education policies, allowing for more flexibility and inclusivity across age groups to better accommodate non-traditional students.

Mixed Results on College Completion

Most studies reported that a free college education does not contribute to completing an undergraduate degree. The comparative study by Espinoza et al. (2023) found that low-SES students benefiting from the free tuition policy are less likely to persist and continue beyond the first year of college than those receiving merit-based scholarships. This suggests that financial assistance alone may not be sufficient to ensure degree completion, as other factors such as academic preparedness, institutional support, and personal motivation play crucial roles in student retention. Also, older students have a higher tendency to drop out of college even with the support of a free college policy, as was observed in the case of Argentina, where students aged 25 and above have more than twice the likelihood of dropping out (Adorgué & Garcia de Fanelli, 2018). This pattern is consistent with findings in other countries, where older students often struggle with balancing academic responsibilities alongside family obligations, childcare, and work commitments. The students, especially those working part-time and the older students who have previously had some type of employment, are often confronted with the tradeoff of the opportunity costs of pursuing a college degree while foregoing potential earnings from working. For many of these students, the immediate need for financial stability outweighs the long-term benefits of obtaining a degree, making it difficult for them to justify remaining in school. Additionally, research indicates that students who enter college without adequate academic preparation may struggle with coursework, leading to frustration and a higher likelihood of dropping out, regardless of tuition costs (Tinto, 2017). These challenges highlight the need for comprehensive support systems, such as academic advising, mentorship programs, and financial aid policies that address not just tuition costs but also living expenses and career readiness.

In Denmark and Argentina, a problem has been observed with the rise in the number of perpetual students or those who do not finish their studies as an indirect consequence of being able to enjoy attending college without the financial burden of paying tuition fees (Adorgué & Garcia de Fanelli, 2018; Heckman & Landersø, 2021). This is particularly insightful, as the contexts of higher education policies on permissible years of study in Denmark and Argentina may be less stringent, which could have allowed for this perpetual studentship to happen. In both countries, the lack of time constraints or limits on how long students can take to complete their degrees has created a situation where some students remain enrolled without completing their studies. This phenomenon is especially prevalent among students who have access to free education but lack the financial pressure to finish within a specific time frame, leading to a sense of complacency. Furthermore, the absence of strict deadlines for degree completion may result in a lack of urgency and motivation, as students do not feel the same sense of financial or academic pressure to graduate on time. The relaxed academic policies in these countries, combined with the availability of free tuition, can create an environment where students may not be incentivized to complete their studies promptly. This issue is not limited to just Denmark and Argentina; other countries with similar policies have also seen an increase in students who take longer to graduate or fail to graduate altogether. Moreover, this extended period of study can contribute to a delay in students entering the workforce, which has long-term implications for their careers and overall economic mobility.

However, some cases indicate that the policy significantly decreases drop-out rates among college students, leading to degree completion (Carpentier et al., 2021). One notable example is Ireland, with a consistent success rate of more than 80% of college students completing their programs since the introduction of the free college policy (Delisle & Hauptman, 2021). This achievement highlights the potential of free college policies when implemented in conjunction with strong support systems, such as academic counseling, career

guidance, and well-structured curricula that encourage timely graduation. Similarly, free college education was a significant predictor of persistence among recipients of New York's Excelsior program (Conzatti, 2022). The program's success can be attributed to the combination of free tuition and the requirement for students to maintain a certain GPA, which helps to ensure that students are motivated to continue their studies while benefiting from financial support. These examples suggest that, under the right conditions, free college policies can effectively reduce drop-out rates and foster degree completion, especially when they are designed to provide not just financial relief but also academic and personal support.

Note that these success stories are not universally applicable, and challenges remain in other regions where the free college policy has not yielded similar results. Given this share of successes and failures of the free college policy on completion, policymakers must take stock of the best practices while carefully considering pitfalls that could undermine gains in increased participation in higher education. For instance, while financial aid might improve access, it does not address the broader issues of student preparedness, retention strategies, and post-graduation employment opportunities. Policymakers must, therefore, balance financial support with programs aimed at improving student engagement, mentorship, and skill-building, ensuring that students are not only able to attend college but also equipped to succeed and graduate within a reasonable timeframe.

The Overlooked Additional Costs

The cost associated with attending college does not end in tuition alone, with the related expenses of living allowances, rent, personal spending budgets, and other things piling up in a student's financial requirement to afford to study. Several studies indicated the issue of these additional costs, which are often overlooked in the design of free college policies. These hidden costs can create a significant barrier for students, even when the tuition is covered. In the case

of the Philippines, students from state universities and public colleges attend free of charge, but the costs associated with attending classes, such as books, transportation, and other learning materials, bear significant burdens on the students (Pascua et al., 2022). These additional expenses, often considered ancillary, can make it difficult for low-income students to afford the full scope of attending college, even if the tuition fees are waived. In this context, students may find themselves unable to access essential resources like textbooks or technology, which are critical to their academic success. Furthermore, the cost of living, including rent and food, can be especially challenging for students from low-income backgrounds, forcing them to take on part-time jobs or reduce their study hours, which could impact their academic performance and overall well-being.

In other examples, students are given additional funding support beyond the tuition and other university fees, but the discussion of the effects of these efforts is beyond the scope of this study. Nonetheless, it is worth noting that some countries and programs have expanded their financial aid offerings to address these broader costs. These initiatives can include stipends for living expenses, subsidies for textbooks, and grants for transportation, which can reduce the financial burden on students and help them focus on their studies. However, even when additional funding is provided, it is crucial that these policies are continuously evaluated to ensure that they meet the evolving needs of students, especially in areas where inflation or other economic factors might increase living costs. Without addressing the full range of financial challenges students face, free college policies, while beneficial in reducing tuition barriers, may fall short in ensuring equitable access to higher education for all students.

Some Unintended Consequences

Free college education policy has also resulted in some unintended consequences. As students take advantage of attending college without the financial burden of paying tuition, self-selection into college programs for various reasons has led to some interesting trends. For instance, one study from Chile reported that tuition-free higher education led to a decrease in the academic qualifications of students entering the teacher-education program, which is predicted to harm teacher quality in the long run (Castro-Zarsur et al., 2022). This trend suggests that when financial barriers are removed, students may choose fields based on external factors, such as job security or income potential, rather than academic interest or aptitude. In the case of teacher education, this self-selection into the program could result in individuals who are less academically prepared or less passionate about the teaching profession, which, over time, may undermine the quality of education and the overall effectiveness of the teaching workforce.

A related trend is reported in Ireland, where there has been an observed bias toward higher-paying careers in STEM, law, or business, fields traditionally dominated by students from high SES backgrounds (Delisle & Hauptman, 2021). Without the financial constraints of tuition, students may gravitate toward career paths that offer higher economic prospects, even if they do not align with their personal interests or talents. This phenomenon is particularly evident in fields where there is a significant financial incentive, leading to an overrepresentation of students from high-income families in those areas. While this might benefit certain sectors of the economy in the short term, it also contributes to an imbalance in the workforce, with oversaturation in specific fields leading to higher levels of unemployment or underemployment in those sectors.

This trend could further exacerbate societal disparities, as students from high-income backgrounds are more likely to pursue careers in these lucrative fields, while students from lower-income backgrounds, even when provided with free tuition, may still face barriers to entering competitive and well-paying professions due to limited networks, mentorship, or prior exposure to these fields. In the long term, the self-selection bias could lead to workforce imbalances, where essential but lower-paying sectors, such as education, healthcare, and social services, suffer from a shortage of qualified professionals. This underscores the need for policy adjustments that encourage a broader range of students to pursue diverse career paths, ensuring that free college education does not inadvertently concentrate talent and resources in only a few sectors.

Table 3.

Mapping Themes Across the Studies

Author/s	Year	Main Themes			
		Increase Attendance	Inequitable Access	College Completion	Additional Costs
Anderson, et al.	2024	•	•	•	
Assaad	2010	•			•
Carpentier, et al.	2021	•		•	•
Carruthers and Fox	2016	•		•	•
Carruthers et al.	2022	•			
Cui	2024	•	•	•	
Daugherty & Gonzales	2016	•	•		
Delisle & Hauptman	2021	•	•	•	•
Duryea, et al.	2023	•	•		
Dynarski et al.	2018	•	•		
El-Gerby	2021	•	•		
Espinoza, et al.	2023	•	•		
Gallacher	2006	•	•	•	
Guerrero, et. al.	2021	•	•		
Lau	2020	•	•	•	
Martinez et al.	2023	•	•	•	
Meehan, et al.	2019	•		•	•
Nguyen	2019				•

Nikula & Matthews	2018	•	•		•
Pascua, et al.	2018	•	•	•	•
Ponce & Loayza	2014	•	•	•	•
Tullao & Ruiz	2022	•	•		

Conclusions

In conclusion, the free college education policy has produced mixed results regarding its intended outcomes in increasing attendance and completion of studies. Although a consensus confirms that the policy effectively increases college participation, there is insufficient evidence that it will translate into successful degree completion. These findings are relevant in informing the improvement of free college education policy if policymakers want to achieve increased attendance and completion while ensuring minimal to no unnecessary transfer of wealth to otherwise able households. Further, the policy resulted in unintended consequences of selfselection bias and reduced focus on research production, which potentially lead to further complications if left unresolved.

One key challenge is that students from low socioeconomic status (SES) backgrounds remain at a distinct disadvantage. In contexts where academic rankings are prioritized, low-SES students are less likely to secure admission than their counterparts from upper and middle-income households. To address this inequity, policymakers should consider redesigning admissions policies to prioritize students from the bottom quintile of the SES distribution. A targeted system or a specific quota for disadvantaged students can provide a short-term solution to access and equity problems (Assaad 2010; Delisle & Hauptman 2021).

However, caution must be taken to balance improving access with quality. Increasing the proportion of low-SES students without ensuring adequate academic preparation could negatively impact overall learning outcomes. To address this initial trade-off, secondary and tertiary institutions should establish mentorship and training programs to equip disadvantaged

students with the skills and support needed to succeed in higher education (Meehan et al., 2019). Studies have long proven the benefits of improving academic preparation in college, starting from secondary education, in increasing access for low-SES students (Choy 2001; Engle & Tinto 2008; Horn & Nunez 2000). This approach can ensure more equitable college access while addressing the long-term goals for maintaining the quality of overall learning outcomes.

As for future research direction, one key limitation of the studies is the need for more evidence on post-graduation outcomes or the degree to which the free college education policy contributed to future earnings potential. A tracer study of free college education policy recipients can achieve this aim and confirm earlier predictions on the long-term benefits of tuition-free college. Another possible area of future inquiry that will be beneficial is the longitudinal analysis, which can help illustrate trends in the intended outcomes of free college policy. It is also suggested to conduct more comparative analysis of the free college policy in different contexts (LMICs and Mid/High-income countries) to generate nuances in perspectives for further development of this scholarship topic.

DECLARATION

I hereby declare that this research report is my own original and unaided work, and I have given full acknowledgement to all the cited and referred sources used

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ANNEX

Authors	Year	Context	Design	Main Findings
Anderson et al.	2024	USA Wisconsin	Regression discontinuity design	Increased college attainment by 5%, no indication of effect on lowering graduation rates
Assaad	2010	Egypt	Regression analysis	Inequitable access favoring high SES students
Gallacher	2006	UK Scotland	Descriptive quantitative	Increased access participation, stratification in terms of the types of universities
Carpenter et al.,	2021	Chile	Regression discontinuity design	Causal relation in improving participation and higher completion rates
Carruthers & Fox	2016	USA Tennessee	Difference in difference	Significantly led to college attendance gains with 24% likelihood to go to college
Carruthers et al.	2022	USA Tennessee	Linear probability modelling	Causal effect on attaining associate's degree, no effect on attaining bachelor's degree, and negative effect on potential earnings
Cui	2024	Australia	Regression discontinuity design	Increased enrolment for females and low SES students, significant predictor of post-college work status
Daugherty & Gonzales	2016	USA Connecticut	Regression discontinuity design, difference in difference	Positive impact to enrolment, pre-college preparation has impacts, mixed results on postcollege outcomes
Delisle & Hauptman	2021	Ireland	Descriptive quantitative	Increased enrolment, inequitable access, 67% increase in completion, pre-college preparations is necessary
Duryea et al.	2023	Brazil	Regression discontinuity design	Positive causal relation to lifetime earnings, inequitable access
Dynarski et al.	2018	USA Michigan	RCT	Increased attendance by 15%, increased application by 42%
El-Gerby	2023	Egypt	Logistics probability regression	Increase chances for attending college, Inequitable access,
Espinoza et al.	2021	Chile	Regression discontinuity design	No difference in academic performance between fee paying and fee-free students, could reduce

				inequality in labor market
Guerrero et al.	2023	Ecuador	Descriptive correlational	Inequitable access, increase participation, ethnicity and rural background reduces access
Lau	2021	USA (community colleges)	Multi-level modelling	Increased enrolment by 26%, improve welfare of students, degree completion up by 20%, inequitable access
Martinez et al.	2023	USA Michigan	Structural equation modelling (SEM)	Increase access for BIPOC students, pre-college preparation matters,
Meehan et al.	2023	USA Tennessee	Descriptive	Increased enrolment by 5.9% in initial implementation, additional costs apart from free tuition needed
Nguyen	2019	USA New York	Difference in difference	Minimal effects on enrolment
Nikula and Matthews	2018	New Zealand	Descriptive	Potential for increasing enrolment, inequitable access for low-SES students
Ponce & Loayza	2012	Ecuador	Ordinal logistics regression	Neutral effect on enrolment, inequitable access in the long run

Bionote

Joel Paulin Mendoza is an education research specialist with experience in the development and academic sectors. He has contributed to policy research projects with organizations such as the World Bank and the Research Institute for Teacher Quality (RITQ). Currently, he is pursuing an Ed.M. at the Harvard Graduate School of Education (HGSE), Harvard University, where he is a recipient of various scholarships: John E. Steven's Master Fund, Eugenio M. Lopez Scholarship Fund, and HGSE Grant Scholarship. He previously earned a Master's degree in Applied Policy from the University of Technology Sydney (UTS) as an Australia Awards Scholarship recipient and a Bachelor of Secondary Education (Mathematics) from the Polytechnic University of the Philippines.