Impact Assessment Report

Nurturing Brilliance Scholarship Program (FY 2022 – 2025)

Cummins India

Under CSR Initiative

Executive Summary

Cummins India has commissioned an impact assessment of the Nurturing Brilliance Scholarship Program for FY 2022 - 2025. A Theory Based Evaluation approach was adopted to evaluate the program's merit and significance in the lives of program participants. The OECD-DAC Evaluation criteria were utilized to inform the evaluation questions - core to understanding findings. The following executive summary provides a brief glimpse into the program findings, and their impacts.

Program Relevance

The NB Scholarship is highly relevant to the needs of socio economically disadvantaged engineering aspirants, effectively targeting students experiencing both income and non monetary deprivation. Beneficiary households report an average annual income of INR 1,24,520, with 84% (n=184) earning below basic sustenance levels and 57% (n=125) below poverty thresholds-including 43% BPL (n=95) and 14% AAY (n=30) families. Livelihoods are unstable, with 67% (n≈146) relying on low wage agriculture, migrant work, or casual labour. Non monetary deprivation compounds this vulnerability: 43% (n=94) live in non pucca homes, 75% (n=166) face overcrowding, 13% (n=29) depend on traditional fuels, 16% (n=36) use unprotected water, and 15% (n=32) lack household toilets.

The cost of engineering education further heightens risk of exclusion, with students incurring **INR 1,38,287** annually- tuition alone forming 51% of this expenditure. **However, the scholarship succesfully mitigates this burden by covering INR 70,968, equal to 51% of student education expenses** and **57% of household income.** Yet 49% (n≈107) still borrow, 18% (n=40) work part-time, and 51% (n≈112) report stress around education costs not covered by the scholarship.

The program's design also addresses structural constraints, providing laptops & mentorship to students, who are structurally deprived from these resources. 74% respondents (n=164) lacked home computers, and 12% (n = 27), who did, did not have ones in proper working conditions. Moreover, considering 13% (n=29) students are first in their families to receive a school education, and 64% (n=142) college learners – mentorship provides much needed support to help them navigate academic and career pathways. Together, these features make the scholarship highly relevant to promoting educational continuity and upward mobility.

Program Coherence

The NB Scholarship demonstrates strong external coherence by aligning with global and national education and employability agendas. It advances **SDG 4** by improving equitable access to tertiary and technical education, and supports **SDG 8** through its emphasis on skill-building and employment readiness. Nationally, it reinforces the **NEP 2020** mandate for equity, financial assistance, digital access, and holistic student development. At the state level, it complements schemes like the **Dr. Punjabrao Deshmukh Vasatigruh Nirvah Bhatta Yojna**, which addresses accommodation and subsistence costs; the NB program adds academic, digital, and psychosocial support, creating a coherent multi-layered ecosystem for disadvantaged students.

Internally, the program aligns well with NB's strategic priorities of **Education, Environment, and Equality of Opportunity**. Program components such as that of mentorship support reinforce organizational coherence, - reinforcing the **Every Employee Every Community (EEEC)** initiative, strengthening employee engagement and wellness.

In the wider ecosystem, the program complements private-sector scholarships by offering a uniquely comprehensive package- tuition support, **laptops**, **mentorship**, and **soft-skills training**- addressing gaps left by merit-cum-means or subsistence-only programs. This positions NB as an additive actor in the

scholarship space – supplementing private and state efforts to catalyze socio-economic mobility, with unique program design, comprehensive coverage, and support for students.

Program Outcomes

Outcome 1.1 -1.3: Financial Assistance → Self-Efficacy, Confidence, Well-Being & Academic Continuity

NB's financial assistance contributed meaningfully to psychological strengthening and academic continuity, particularly for **first-generation college students (64.3%, n=142)** and **first-generation literates (13.1%, n=29)**. Students' average self-efficacy scores improved from **2.57 to 4.18 (n=221)** (Cohen's d≈1.8), and confidence rose from **2.52 → 4.49 (n=221)** (d≈1.87), suggesting a large contribution. However, no significant differences were noticed among men and women. These gains were reinforced through reduced financial stress (**65%, n=143**) – i.e. 67% students reported taking debt as an alternative to NB scholarship - , a sense of achievement, improved recognition, improved motivation (**69%, n=153**), and stronger academic confidence (**62%, n=138**).

Importantly, CA shows that while NB's support was a major driver, improvements also arose from **family encouragement, college engagement, and students' own motivation**. Still, **23.5% (n=52)** explicitly attributed their continued enrolment to NB financial support, indicating a strong contribution to degree persistence & reduction in drop-outs, especially in financially fragile households.

Outcome 2.1 – 2.3: Laptop Provision → Digital Literacy, Academic Productivity & Learning Flexibility

NB contributed substantially to digital capability gains, particularly among students without prior device access (**74%, n=164**). Across digital skill domains, provision of the laptop aided improvements ranged from **+1.6 to +2.43 points** (n=221) on a 5-point scale- coding (**+2.43**), MS Office (**+2.37**), Gen-AI tools (**+2.19**), Excel (**+2.04**). Students used laptops for **~34 academic hours/week (n=216)**, enhancing flexibility (**87%, n=193**) and enabling practice, online courses, and assignment completion.

CA indicates that while curriculum requirements and peer learning also contributed, NB Scholarship played an enabling role by removing access barriers and allowing consistent, self-paced digital learning.

Outcome 3 to 5: Mentorship & Soft-Skills → Career Clarity, Motivation, Employability & Emotional Well-Being

Mentorship contributed to large improvements across career readiness indicators: goal setting (**+1.55**), clarity (**+1.61**), motivation (**+1.52**), pathways (**+1.70**), confidence (**+1.60**), and emotional well being (**+1.27**) (n=152). **81% (n=123, N = 152)** reported that mentorship helped them develop actionable career plans, and **85.5% (n=130)** found guidance effective (somewhat to very). Mentor ineffectiveness largely stemmed from unavailability, infrequent meetings, inactive mentors (26.7%, n = 59), lack of similarity in technical background, and ambiguity in student narratives on role of mentor in career progression.

Among students who attempted placements, NB scholarship program was reported to improve English communication skills (60%, n = 70, N = 116), career guidance (53%, n = 61) and career motivation (48%, n = 56)

Program Impacts

Impact #1: Enhanced Retention & Completion of STEM Degrees: The scholarship significantly mitigates dropout risk in a sector where engineering attrition can reach **45%** nationally. Among scholars, **71.5%** reported the scholarship directly supported degree completion, and **23.5%** stated that financial hardship would likely have forced them to drop out.

Impact #2: Socio-Economic Mobility of Students & Families: The program drives upward mobility, especially for **first-generation learners**. Students transition from agrarian and informal-sector households into formal engineering and associated roles. Among placed students, average CTC is **₹4.92 lakh**, nearly **4× the average household income (₹1.23 lakh)**. A strong secondary impact emerged: scholarship savings **freed household income**, enabling **siblings' education**, reducing financial strain, and improving overall family well-being. However, **43.1%** remain unplaced due to market slowdowns, weak placement cells, and insufficient internship exposure- highlighting the need for structured, Cummins-led placement and internship pathways.

Impact #3: Building a Socially Conscious, "Pay-It-Forward" Cohort: Among scholars, **82%** express willingness to mentor future students, and **69%** have already shared knowledge with peers or siblings. However, the quality of "pay-forward" support varies due to **non-uniform mentorship experiences** and **optional soft-skill modules – impacting student confidence in their capability**, signaling the need for the program to consciously drive social action, program fidelity, and opportunities for contribution among cohorts.

Impact #4: Deepening Compassion, Self-Efficacy & Employee Well-Being: Employee volunteers report enhanced **empathy**, **reflective leadership**, **communication**, and **problem-solving** abilities. Many describe learning from students' resilience, applying mentoring insights to their professional teams and family life.

Impact #5: Strengthened but Uneven Community Goodwill: Students and families express deep gratitude for the program, contributing to strong community goodwill. However, some institutions express requests for amplified Cummins' support, including **plant visits, internships, and deeper engagement**, signalling opportunities for strengthened ecosystem partnerships & stakeholder relationship building.

Program Evolution

From the previous impact assessment cycle in 2018-21, the program has demonstrated significant progress – especially in recommendations carved out. These have significantly positive impacts on the program progress. However – areas for improvement continue to remain. A table summarizing areas that have progressed (green), and scope for improvement (red) have been highlighted in the table below. Titles highlighted in grey – represent domains representing improvements, yet – can be further strengthened.

Dimension	Previous IA Findings/Recommendations	Current IA Findings	What Changed
Ease of Application Process & widening reach	• Application process unclear • Unclear reimbursement process • Recommendation: videos for mock tests	• **Mock test preparation documents continue to be in demand** • No major concerns with application process highlighted • However – **reach can be widened**, especially among 12+ students to avail scholarship from Year 1	• Team responsiveness on application process supports students • Scope for improvement to strengthen access among 12+ students, colleges
Laptop provisioning: diploma inclusion	• Extend laptops to diploma students	• Laptops provided to Diploma Students	• Inclusion Broadened Academic orientation of laptop use validated
Claims/Reimbursements (ease & bottlenecks)	• Earlier pain points: terminology confusion, documentation, process clarity.	• Largely paper less process • 89% rate process Somewhat/Very Easy • Frictions remain: travel distance, 2–3 month delays, batch sign-offs, unclear docs. • Way Forward: digital submission + status tracking.	Usability improved; operational lags persist.

Dimension	Previous IA Findings/Recommendations	Current IA Findings	What Changed
Mentorship cadence & structure	• Offline/structured cadences recommended • Irregular mentorship engagement + frequency • Recommendations for Mentorship Playbook	• 26.7% report inactive mentors; 4.5% no support. • Among active mentees: Monthly 41.4%, Bi-monthly 18%, Quarterly 14%; Weekly only 2%. • Relationship quality strong; networking introductions low due to domain mismatches. • Mentorship guidelines provided – however insufficient. • Strong mentor selection + monitoring infra needed.	Outcomes strong when mentors active; frequency/structure gaps can be addressed.
Soft-skills modules (access, mandate)	• Soft-skill provision was not provided earlier	• Non-uniform completion leads to uneven program outcomes • Students accessing modules report support in communication + interview preparation skills	Value recognized; coverage uneven.
Placement & internship support	• Students continue to struggle with placements • Recommendation: Facilitate partnership with placement NGOs to facilitate placements	• Students continue to struggle with internships + placements – several colleges do not have strong placement cells • Way Forward: Partnership with NGOs + Integration of mentorship with capstones/experiential learning	Need persists; can leverage programmatic levers – NGO connects, mentorship opportunities, etc.
Geography: Aspirational districts expansion	• Encourage expansion beyond traditional plant geos – esp to aspirational districts for equity dimension	• Program expanded to aspirational districts (e.g., Osmanabad, Vidisha, Ranchi, Guna); more equitable access noted. • Program may consider caste-based quotas in scholarship programs to target poorest of the poor, on pilot basis.	Progress in Strategic inclusion
Plant visits / exposure	• Reinstate plant visits post-COVID; high experiential value.	• Reinstated again recommended for motivation & industry readiness; paused since COVID. • Strong move to strengthen stakeholder connects with universities.	Pending; reiteration underscores importance.
Alumni network	• Structure post-completion give-back & networking through platform	• 82% willing to mentor future scholars; 69% already share learnings implying strong social levers • However, pay-it forward mechanisms will need strong structured nudges + orientation • Reiterate need for digital alumni platform + quarterly follow-ups.	Momentum present; needs platform, structuring & cadence.

Table of Contents

Executive Summary 1

Table of Contents 5

List of Figures 6

List of Tables 7

Abbreviations 8

1. Introduction 9

2. Key Evaluation Questions & Evaluation Criteria 10

OECD-DAC Criteria 11

3. Research Approach & Design 12

Contribution Analysis Approach 13

4. Program Stakeholders 13

5. Theory of Change, Indicators, and Means of Verification 14

The Nurturing Brilliance Theory of Change 15

Alternate Contribution Pathways 16

6. Research Design, Sample Size & Research Methodology 21

Sampling & Research Methodology 21

Chapter I: Demographic Profile of Respondents 24

Chapter 2: KEQ I - Program Relevance 27

Chapter 3: KEQ II – Program Coherence 37

Chapter 4: KEQ III – Programmatic Outcomes 40

Chapter 5: KEQ IV – Programmatic Impact 71

Chapter 6: KEQ V – Program Sustainability 82

Chapter 7: Evaluation of Intervention from the lens of OECD-DAC Criteria 85

Annexure 1: Review of Literature. 91

List of Figures

Figure 1: OECD DAC Criteria 11
Figure 2: Contribution Analysis Life Cycle 13
Figure 3: Stakeholder Map of NB Scholarship 14
Figure 4: Initial Theory of Change 17
Figure 5: Gender Distribution of Respondents 24
Figure 6: Age wise Distribution 24
Figure 7: Course wise distribution 25
Figure 8: Type of Courses Enrolled 25
Figure 9: Years of Recieving Scholarship 25
Figure 10: Social Category of Respondents 26
Figure 11: Current year of study 26
Figure 12: Course Duration 26
Figure 13: HH Status vis-a-vis MPCE Values 28
Figure 14: Primary Source of HH Income 28
Figure 15: Status of Family owning Ration Card 28
Figure 16: % of Students living in overcrowded HHs 29
Figure 17: State of housing amongst respondents 29
Figure 18: Source of energy for cooking 29
Figure 19: Primary Source of Drinking Water 30
Figure 20: Toilet Access at HH level 30
Figure 21: Stress levels for managing expenses not covered by Cummins 32
Figure 22: Means of financing the funding gap 32
Figure 23: Access to home-computer prior to laptop 33
Figure 24: Access to laptop under NB Scholarship 33
Figure 25: Unrestricted access to computer or laptop by college 34
Figure 26: Course mandating use of personal laptops in the classroom 34
Figure 27: Task management in absence of laptop 34
Figure 28: First Generation Learners in family 35
Figure 29: Gender wise distribution of first generation school going learners 35
Figure 30: First-generation college student 36
Figure 31: Mean before & after self-efficacy scores 42
Figure 33: Students reporting drop out incase of unavailability of scholarship 44
Figure 34: Distribution of responses against improvement in academic outcomes 46
Figure 35: Ease of claim processes with Cummins 48
Figure 36:Distribution of Mean Before and After scores of digital skill outcomes 51
Figure 37: Distribution of responses against utilization of laptop by students 54
Figure 38: Distribution of responses against impact of laptop on study hours 55
Figure 39: Allocation of mentors at the time of joining the program 57
Figure 40: Frequency of mentorship support offered to the students under program 58
Figure 41: Assessment of mentor-mentee relationship 59
Figure 42: Word cloud of benefits recieved from Mentorship support 61
Figure 43: Responses against satisfaction with Job Offers amongst students 64
Figure 44: Percieved benefit of scholarship 65
Figure 45: Areas for strengthening NB Scholarship Program 69
Figure 46: Risk of dropping out of college, in absence of cummins 72
Figure 47: Career readiness support recieved from cummins 74
Figure 48: Socio-economic mobility of students - placement offers vs hh income 76

List of Tables

Table 1: Key Evaluation Questions 10
Table 2: Alternate Contribution Pathways to stated outcomes and impacts 16
Table 3: Tentative Indicators & Means of Verification 18
Table 4: List of Constructs and Recommended Instruments of Measurement 20
Table 5: Sampling Distribution 21
Table 6: City Wise Sampling Distribution 22
Table 7: Expenditure Break up of student expenses 31
Table 8: Allignment with Policies/Schemes/Resolutions 38
Table 9: Comparison of scholarship benefits 39
Table 10: Mean self-efficacy scores for students 41
Table 11: Mean confidence level scores of students 43
Table 12: Mean digital skill scores (before & after) scholarship 50
Table 13: Mean value of mentorship gains 59
Table 14: Challenges & Way forward for sustaining program outcomes 83
Table 15: Assessment of Intervention from OECD-DAC Criteria 85
Table 16: Summary of Impacts of Scholarships on Educational Outcomes 91
Table 17: Summary of Literature Review on Impact of Home Computers 93
Table 18: Summary of Literature of Impacts of Mentorship Programs on Students 94

Abbreviations

AI	Artificial Intelligence
AAY	Antyodaya Anna Yojana
BPL	Below Poverty Line
CSR	Corporate Social Responsibility
DAC	Development Assistance Committee
EEEC	Every Employee Every Community
FGD	Focus Group Discussion
HH	Household
IA	Impact Assessment
KEQ	Key Evaluation Question
MPCE	Monthly Per Capita Expenditure
NEP	National Education Policy
NGO	Non-Governmental Organization
OECD	Organization for Economic Cooperation and Development
SDG	Sustainable Development Goal
STEM	Science, Technology, Engineering, and Mathematics
TPO	Training and Placement Officer
ToC	Theory of Change
PVTG	Particularly Vulnerable Tribal Group

1. Introduction

India's National Education Policy (NEP, 2020) has set an ambitious target - to increase the Gross Enrollment Ratio - from 28.4% in 2021-2022, with 43.3 million students, to 50%, by 2035 in Higher Education[1]. Especially in a country like India - with structural socio-economic inequities impacting a youth demographic (constituting nearly 50% of India's population] - **scholarships are a key tool to promote inclusivity and equity in India's higher education ecosystem**, and for students to become important levers in India's economic transformation - achieving its vision of Viksit Bharat by 2047. Scholarships or grants-in-aid have been associated with student persistence and degree completion[2], timely access to education[3], reduced educational debt, ability to concentrate with more focus in class - impacting acquisition of skills and competencies[4], among other benefits. These in turn, have implications on student career readiness and student socio-economic well-being.

The strong case for scholarships is only bolstered by its push at the National Level, and in civil society. The Government of India has instrumentalized several scholarship programs for students - since 1961, through a combination of need based, merit based, means cum merit scholarships, and collateral free loans. These include the Rastriya Uchchatar Shiksha Abhiyan (RUSA), AICTE Pragati Scholarship, AICTE Swanath Scholarships, - to other innovative financial models - including PM Vidyalaxmi, providing meritorious students collateral free, guarantor free education loans to students. The emphasis on scholarships from a policy lens, is further highlighted through the recent launch of the The *National Scholarship portal*, by the Government of India. The portal aims to provide a one-stop solution for student scholarship services, ranging from applications to the disbursal process. Despite the large number of scholarship programs; the utilization of these scholarship remains unfulfilled due to a complex set of factors, including lack of awareness, insufficient financial aid support, complex digital portals, bias in funding opportunities etc[5]. In an analysis conducted by the Institute of Economic Growth - the utilization of centralized scholarship schemes is 49.43%. Even among these, the seats occupied by Scheduled Tribe, Scheduled Caste and OBC[6] categories was relatively lower.

While financial aid is crucial - it is not enough. The success of scholarships and financial aid are highly dependent on their ability to overcome structural inequalities that impact their access, permanence, and academic performance at the university (Cabrera et al., 2012; Gairín et al., 2014 in Berlanga & Corti, 2025). These deficits may range from financial capital (such as boarding, books, additional tuitions etc.) and social, and cultural capital deficiencies (including the lack of college readiness skills, support from teachers or counselors, mentors, etc.)[7][8] - not to add gendered dimensions to the deprivation.

Recognizing the multi-faceted nature of structural deprivation; with the aim of uplifting socio-economically weaker sections of society, the Cummins India Foundation - the CSR Entity of Cummins India, has driven the "**Nurturing Brilliance**" scholarship program for students pursuing degree and diploma courses in Engineering, since 2006. The program is supported by Cummins India Limited, Tata Cummins Private Limited, Cummins

[1] NEP 2020 and the 50% GER target: A federated strategy must for future of higher education - The Hindu
[2] The Effects of Grant Aid on Student Persistence and Degree Attainment: A Systematic Review and Meta-Analysis of the Causal Evidence - Tuan D. Nguyen, Jenna W. Kramer, Brent J. Evans, 2019
[3] Can scholarships provide equitable access to high-quality university education? Evidence from the Mastercard Foundation Scholars Program - ScienceDirect
[4] Impact of Scholarships on Student Success on JSTOR
[5] Kumar, R., & Bhandari, S. (2025, June 6). Why many marginalised students can't access scholarships. *India Development Review*. https://idronline.org/article/education/why-many-marginalised-students-cant-access-scholarships/
[6] . Within that, percentage of utilization by the general category and OBC category is 54.11 and 52.76 percent respectively. Whereas the percentage of utilization for SC and ST category is 40.64 and 23.58 per cent respectively, as quoted here: https://iegindia.org/upload/profile_publication/doc-120620_111054wpp%20395.pdf
[7] Stanford Center for Education Policy Analysis. (n.d.). *Demographics and populations most impacted by financial barriers*. Stanford University. https://cepa.stanford.edu/sites/default/files/webform/demographics-and-populations-most-impacted-by-financial-barriers_0.pdf
[8] Jeyaraj, S. S., & Al-Zubi, M. (2024). Impact of financial barriers on higher education: A systematic review. *Evaluation and Program Planning*, *104*, Article 102434. https://doi.org/10.1016/j.evalprogplan.2024.102434

Technologies India Pvt. Ltd, and Cummins Generator Technologies India Private Ltd. The financial support offered to students is until the time of the course completion and is accompanied by a well-structured mentoring program with senior employees from the company, along with soft-skill training modules to enable the students to participate effectively in the workforce. The mentoring program along with the scholarship support aims to instill soft skills, build employability skills, and provide career guidance to students. Take-home laptops are also provided for students.

The scholarship is offered to students from economically backward backgrounds, who need financial support to continue their studies - around Cummins India's Plant locations. Currently, for the years 2022-2025, these locations include: Pune, Phaltan, Jamshedpur, Dewas, Pithampur, Ahilyanagar, Nagpur, & VCPL Plant locations. Based on recommendations from the Impact Assessment Report of 2018 – 2021, the program has been expanded to include Aspirational Districts - including Osmanabad, Vidhisha, Ranchi, and Guna. About 833 scholars have been supported in the years 2022-2025. Ultimately - Cummins India holds the dual goal of uplifting economically weaker sections, while also creating a pool of talent, that Cummins and similar enterprises may benefit from.

Cummins has commissioned an independent third-party Impact Assessment of the Nurturing Brilliance scholarship program for the period 2022 to 2025. The following report outlines the study findings, in reference to the period. To contextualize findings, the report also elaborates on the key evaluation questions (KEQs), the proposed Theory of Change, the research methodology, approach, sampling strategy, evaluation criteria, findings, and way forward strategies for the program.

2. Key Evaluation Questions & Evaluation Criteria

An Evaluation refers to the act of objectively assessing the merit, worth, value or significance of a policy, program or project[9]. The OECD-DAC[10] Criteria refer to the six parameters through which an intervention's merit, worth, or significance may be evaluated. They are Relevance, Coherence, Impact, Effectiveness, Efficiency and Sustainability. The criteria may be used selectively and thoughtfully, based on their applicability to the Program Design. Based on its relevance - the IA Team has included Relevance, Coherence, Impact, Effectiveness and Sustainability as key parameters to evaluate the intervention against. Relevant Efficiency indicators have been covered under the Effectiveness Criteria.

Table 1: Key Evaluation Questions

#	Key Evaluation Question	Areas of Enquiry	Methodology
1	How is the NB scholarship and its sub-components **relevant** to the needs and aspirations of economically and socially disadvantaged youth seeking an education in Engineering across degree & vocational courses?	• Relevance to Beneficiary needs, policies, priorities • Program Design Responsiveness to Beneficiary Needs • Relevance to needs of marginalized populations - Women, PVTG Communities, First generation Learners, Disabled Persons etc.	• Secondary Literature • Primary Data Collection

[9] American Evaluation Association. (n.d.). What is evaluation? [PDF]. Retrieved December 12, 2025, from https://www.eval.org/Portals/0/What%20is%20evaluation%20Document.pdf

[10] For a detailed understanding of the OECD DAC Criteria, including how it is read, interpreted, and applied – please refer to this guidance note: https://one.oecd.org/document/DCD/DAC(2019)58/FINAL/en/pdf

2	How **Coherent** is the NB scholarship externally - to international & country efforts, and internally - i.e. to organizations priorities?	• Alignment with International & National Policies, Priorities, & Programs • Complementarity to similar country/sector interventions., etc. - with a focus on students from marginalized communities	• Secondary Literature • Primary Data Collection
3	How **Effective** is the NB Scholarship design in contributing to intended outcomes, i.e., student academic achievement, digital literacy, social well-being etc. 3.1. Did the NB Scholarship produce differential outcomes for different populations - i.e. for e.g. male & female students? 3.2. What are unexpected and emergent outcomes from the program intervention?	• Program effectiveness towards securing intended outcomes - vis-à-vis scholarship, mentorship, soft-skill training, provision of computers etc. • Differential outcomes • Roadblocks/Risks towards achieving intended outcomes • Redundancies in contribution pathways towards achieving intended outcomes by other actors/ecosystem	• Secondary Literature • Primary Data Collection
4	What **Impacts** did the NB Scholarship contribute to program participants - direct, and indirect stakeholders i.e. students, mentors, etc. What are unexpected and emergent outcomes from the program intervention?	• Program effectiveness towards securing intended impacts - vis-à-vis scholarship, mentorship, soft-skill training, provision of computers etc. • Differential impacts • Roadblocks/Risks towards achieving intended impacts	• Secondary Literature • Primary Data Collection
5	5. How **sustainable** are outcomes and intended impacts? 5.1. Challenges & Barriers to sustaining project outcomes. 5.2. Relevant strategies to sustain and scale the program - keeping in mind the intended outcomes & impacts	• Challenges/barriers to sustainability of outcomes and impacts. • Strategies to scale program	• Secondary Literature • Primary Data Collection

OECD-DAC Criteria

Evaluative criteria provide an overarching normative framework for intervention assessment; and play a vital role in guiding the evaluation questions (UNEG, 2011). The Organization for Economic Cooperation and Development (OECD) originally set up evaluative criteria to assess how its interventions were doing, and more recently to track progress against the 2030 Development Agenda. Due to their holistic evaluation, these criteria are popularly used beyond OECD-DAC in the use of evaluating differing evaluands. Given below is a succinct introduction to the various criteria in question:

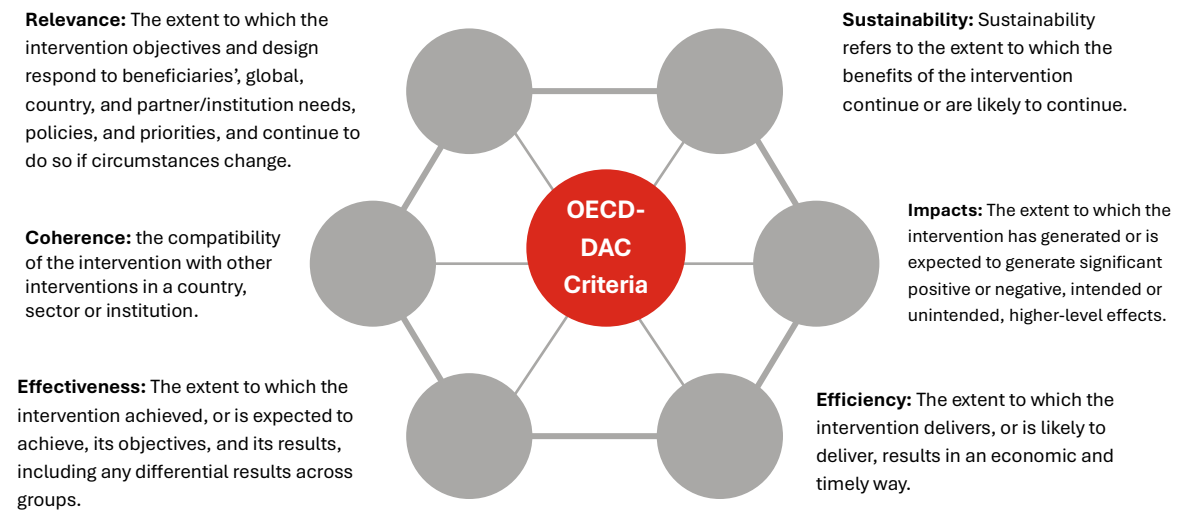


Figure 1: OECD DAC Criteria

Rationale for Combining Efficiency & Effectiveness as Evaluation Criteria

The OECD-DAC Guidance Note "On Applying Evaluation Criteria thoughtfully" specify that evaluation criteria must be applied thoughtfully, contextually, and not mechanistically. Evaluation questions, stakeholder priorities, and the program's design should guide how efficiency is interpreted. Therefore – evaluation criteria have been selected, and interpreted keeping in mind program relevance, and their ability to capture the program's outcomes and impacts holistically.

The guidance note specifies that Efficiency is " the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way." Typically – methods of valuing, such as Cost–Benefit Analysis (CBA), Social Return on Investment (SROI) etc. are better suited to understand program's efficiency, from an economic standpoint.

Given the program's core outcomes —self-efficacy, well-being, and psychosocial development— the evaluation team felt – CBA, SROI, and similar methods – in the context of this evaluation - might be **myopic**, and not well suited to understand the nuances of scholar journeys, struggles, and the outcomes by themselves. Additionally – given the program's design, efficiency, as viewed from the lens of a CBA or SROI, may have had implications with **important trade-offs from an equity dimension**. Therefore – efficiency was not considered separately as an evaluation criterion.

However, at the same time – efficiency, as understood in the context of the program delivery was considered important to program success, and indicators are **included as part of the program effectiveness criteria** – to understanding achievement of program outcomes. These include:

- Frequency and quality of mentorship sessions relative to mentorship outcomes
- Hours of laptop usage (academic vs. non-academic) in relation to skill acquisition
- Operational elements such as ease of reimbursement processes, etc.

Cross-cutting Themes - Intersectionality

Apart from the core OECD-DAC criteria, the study also adopts an intersectional focus. Coined by Kimberley Crenshaw - a civil rights activist and professor at UCLA- the term Intersectionality is used to speak about how gender and race intersect to create multi-layered forms of domination. In India - intersectionality is understood within the refrain of caste, economic backwardness, gender, disability status etc., and how these multiple identities intersect, to create structures of oppression or systematic structural barriers for people towards their social and economic mobility.

As far as the NB evaluation is concerned, adopting an intersectional lens will help examine - for instance, how an intervention has interacted with multiple aspects of a specific identity - i.e. gender, caste, etc. For instance, how does the NB scholarship interact with first generation learners; and how might the outcomes be different for males vs. females? What are systematic roadblocks people with multiple structural barriers face towards achieving intended outcomes and impacts. While a complete intersectional analysis is beyond the scope of this study; however, it attempts to throw light on how the intervention intersections with multiple socio-economic characteristics of students, to shift structural inequalities.

3. Research Approach & Design

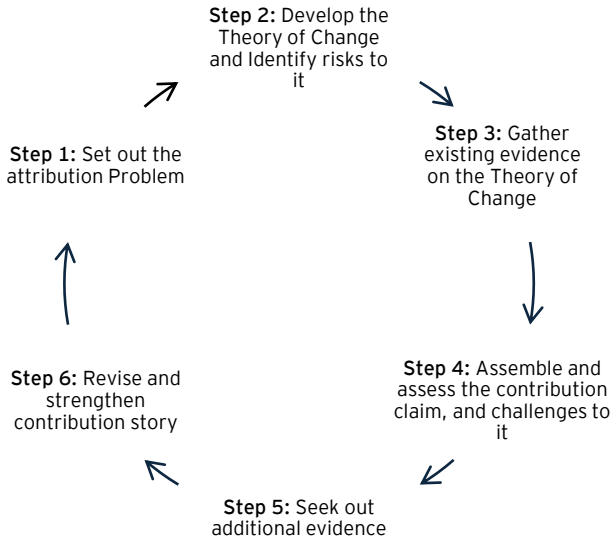
Each Evaluation is grounded in an Evaluation Approach - used to guide to the underlying philosophy between how the evaluation is conducted, including methods, indicators, and how evidence is interpreted. The evaluation adopted a Contribution Analysis Approach, utilizing a mixed-method study, with retrospective pre-post test design[11]. An Intersectional Approach was also touched upon through the IA process, ensuring that caste, economic status, gender, and disability will be considered in the evaluation process - where relevant.

[11] The Program did not possess a baseline, and a counterfactual was not feasible in the current context. Therefore, the evaluation focused on program contribution to student outcomes, adopting a contribution analysis approach.

Contribution Analysis Approach

Unlike Causal Evaluation Approaches - that emphasize cause-effect relationships; a Contribution Analysis (CA) Approach emphasize program *contribution* to intended outcomes and impacts. Simply put - a CA approach, acknowledges that there may be other factors influencing outcomes; however, the focus is on identifying the contribution claim (i.e. what intended outcomes or impacts an intervention may produce), gathering and triangulating evidence to strengthen the contribution claim. This new evidence is used to deepen the program's understanding and its Theory of Change.

As for the Nurturing Brilliance Program - the IA Team interacted with Cummins to understand key points of interest - defining the KEQs. The Theory of Change has been created with Assumptions/Risks consultatively with Cummins, backed by secondary research (ref Annexure 1), and the existing documentation shared by them to ascertain the contribution story. As the IA is a third-party assessment, and in the absence of sufficient quantitative & qualitative data - it is necessary for the IA Team to conduct a primary data collection exercise. Based on forthcoming data, the contribution story will be ascertained, and the theory of change will be revised to develop a robust, and representative theory of change.



#	Steps	IA Team
1	Attribution Problem	IA Team identified the KEQs, Theory of Change - identifying Impacts & Outcomes to be assessed.
2	Develop ToC	ToC Developed with aid of secondary literature, evidence, and in consultation with Cummins based on observations
3	Gather Evidence on ToC	ToC validated by Cummins based on their observations
4	Assess Contribution Claim & Challenges	As IA is a third-party assessment - there is a need to independently triangulate claim. Moreover, contribution claims are independently observed, thus mandating primary data collection.
5	Seek additional evidence	To be observed through Primary Data Collection with stakeholders

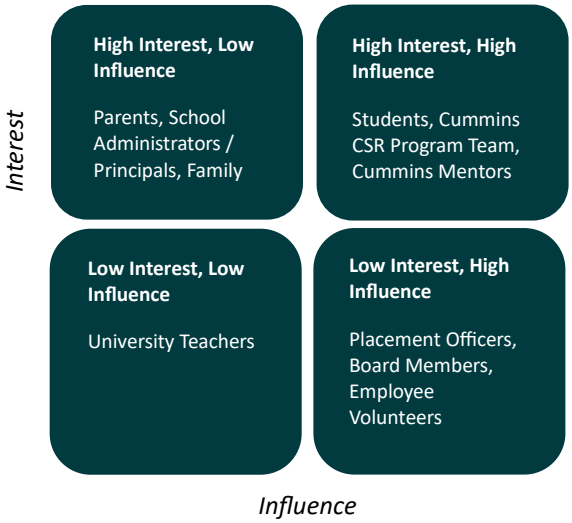
Figure 2: Contribution Analysis Life Cycle

4. Program Stakeholders

Impact Evaluations attempt to center the evaluative exercise with stakeholders at the center of the study. Stakeholder mapping attempts to assess the important stakeholder or actors in the process, and how to involve them in the process of the assessment. Stakeholders are assessed based on a 2 x 2 - interest to power matrix - to help understand, who evaluation participants must be, and how might results be communicated to support programmatic impact.

Based on the stakeholder map constructed - Primary Stakeholders were identified as Students, Parents, Cummins CSR Team, Mentors, and Employee volunteers, as having a direct stake in the program outcomes. The Cummins CSR Team has been identified as a primary stakeholder, considering the program is a flagship initiative of the foundation, and its performance has a direct influence on the foundation's strategy. Secondary Stakeholders included the Board Members, and Placement Officers - which though did not benefit from the

program, exercised indirect influence on the program outcomes. All Primary Stakeholders were engaged in the program evaluation. From among secondary stakeholders - Placement Officers were engaged, to provide perspectives on student performance, and triangulate evidence on outcomes, and inefficiencies.



Primary Stakeholders: Students, Parents, Cummins CSR Team, Mentors, Employee Volunteers

Secondary Stakeholders: Cummins Board, Placement Officers

Figure 3: Stakeholder Map of NB Scholarship

5. Theory of Change, Indicators, and Means of Verification

A Theory of Change is a project planning and management tool - which explains "how the activities undertaken by an intervention (such as a project, program or policy) contribute to a chain of results that lead to the intended or observed impacts" (Better Evaluation, n.d.)[12]. A Theory of Change emphasizes not just "what" changes take place, but rather "how" those changes take place i.e. the causal pathways leading to creating intended changes. Furthermore, it also highlights the underlying assumptions and risks that need to be managed. While a Theory of Change is an effective tool to plan & strategize on program design from an outcome or impact focused lens; however, for evaluators - it is used to effectively conceptualize a program's outcomes & impacts, diagnose inefficiencies or pain points, and re-evaluate the program's theory of change to ensure it effectively drives the intended outcomes for the project, program, or policy.

While the underlying logic behind a program may often be intuitive to development actors; at its heart - a ToC is used to clarify and delineate intuition based on iteration, adaption, and systematic evidence. Therefore, several development actors utilize Theory of Change Diagrams to **clarify causal thinking, refine program planning and learning, and redrawing program logic for the future - with the aim of enhancing effectiveness and impact.** Given below - is the *initial Theory of Change* - developed in consultation with Cummins, with the relevant indicators, and means of verification forecasted to measure program change. The arrows indicate the causal direction of inputs to activities, outcomes, and impacts. The Risks & Assumptions underlying the program's theory of change are also noted below in numbered boxes along the causal pathways.

A Theory of Change provides a necessary wireframe to determine the Evaluation's *indicators* - a variable, which provide us the means to measure the changes concerned with an intervention. The indicator may be

[12] BetterEvaluation. (n.d.). *Describe the theory of change*. BetterEvaluation. https://www.betterevaluation.org/frameworks-guides/managers-guide-evaluation/scope-evaluation/describe-theory-change

quantitative or qualitative in nature. (OECD, 2010 in INTRAC, 2015)[13]. Particularly, in Evaluations - it is recommended that Indicators be SMART i.e. **S**pecific, **M**easurable, **A**chievable, **R**ealistic, and **T**imebound. Both quantitative and qualitative indicators considered are mentioned below, along with the means of verification, and the stakeholders involved.

The Nurturing Brilliance Theory of Change

The Theory of Change (ToC) for the Nurturing Brilliance Scholarship Program was co-created in consultation with the Cummins Program Team. The ToC illustrates how the three core interventions- financial aid, mentorship, and laptop provision-work together to primarily enable scholars' academic success, socio-economic mobility, and long-term empowerment towards themselves and their families. The IA Team hypothesized that the program intervention's benefits went beyond students themselves, with the benefits spilling over to that of mentors, employee volunteers, and Cummins at an organizational level - promoting greater wellbeing.

Based on secondary research, and the experiences of the Program & IA Team, Financial support (as highlighted by the blue pathway in Figure 1), by reducing economic barriers to education, fosters self-efficacy and confidence among students, especially girls, and ensures their social and financial well-being. This stability enables students to complete their education degrees, contributing to long term retention and completion rates in STEM fields. Laptop provision (as highlighted by the green pathway, in Figure 1) enhances digital literacy and computer proficiency, improved flexibility and efficiency in study time and enhanced academic achievement and performance.

Mentorship (as highlighted by the orange pathway, in Figure 1) strengthens employability skills, career readiness, and informed decision-making in career choices. Mentorship also builds career motivation, self-efficacy, and deeper interpersonal support systems. These outcomes collectively lead to enhanced student retention and completion rates, student and family well-being, socio-economic mobility for the student and their families (inclusive of gender roles, economic mobility etc.), and a pool of socially conscious graduates who pay it forward. A combination of the support provided through mentorship and digital skills, improve student employability skills among students, making them career ready.

Apart from benefits associated with enhanced STEM completion rates, and student socio-economic mobility, the program fosters greater community goodwill towards Cummins, deepens compassionate consciousness and employee wellbeing - fostering a powerful cycle among the program's stakeholders to pay it forward. The Initial Theory of Change was used to construct research design & program tools. Based on findings from the impact study, a Revised Theory of Change will be presented in the latter half of the report.

Hypothesized Risks & Assumptions: The Theory of Change rests on several critical assumptions that underpin the success of specific outcome:

1. Laptop Utility & Associated Outcomes: Assumption #1 hypothesizes, that for laptops to enhance digital skills and impact efficiency in study time, laptops need to be in good working condition. Assumption #2 takes into consideration the negative displacement effects caused due to the use of laptops for non-academic purposes and highlights that laptops must be used primarily for education purposes; failing which, they may lead to Unintended negative impacts on students' academic performance.

[13] Simister, N., Napier, A., MacDonald, N., Moberly, C., Garbutt, A., O'Flynn, M., & Giffen, J. (2016, June 1). *Indicators* (Monitoring and Evaluation Series No. 8). INTRAC. https://www.intrac.org/app/uploads/2016/06/Monitoring-and-Evaluation-Series-Indicators-8.pdf

2. Mentoring Effectiveness & Associated Outcomes: Mentorship outcomes rely on the assumption #3, that instructors are effective. Student career readiness and motivation is also dependent on the matching of Mentors & Mentees - i.e. that they are based on similar interests etc., as outlined in Assumption #4, to ensure real-world, relevant guidance and support.

3. Financial Aid & Associated Processes: The financial aid pathway relies on timely adherence to fee reimbursement processes so that students can continue their education without financial disruption, as outlined by Assumption #5.

Finally, Assumption #6 outlines that to cater to socio-economic mobility of students, colleges need to provide effective placement support, for skills to translate into jobs with effective placement support, translating improved skills and confidence into actual employment opportunities. If these assumptions fail, the program may not realize its full potential to support socio-economic mobility among students.

Alternate Contribution Pathways

The NB Impact Evaluation adopts a Contribution Analysis Approach [more on this, later]. Alongside a Theory of Change - it is important to recognize alternative pathways of change, or additional contributive factors. These refer to factors, apart from the program in itself which aid the achievement of outcomes. Objectively understanding these - not only help sharpen and critically analyze the contribution claim but also maintain objectivity in reporting contribution stories. The study design, attempted to account for the following alternate contribution pathways to program outcomes to critically analyze how the Cummins scholarship may have supplemented programmatic impacts:

Table 2: Alternate Contribution Pathways to stated outcomes and impacts

#	Outcome	Alternate Pathway / Other Contributive Factors
1	Students are able to successfully complete Education Degree	Students may raise funds through relatives, loans, savings from the family, alternate scholarships to complete their education degree.
2	Interpersonal Skills, Social Wellbeing	Students may have pro-social skills & a strong community base - thus contributing to student's social wellbeing, and student interpersonal skills.
3	Self-Efficacy among Students	As students are high performing students, it is possible that baseline self-efficacy was sufficiently high due to past high-performance, or accolades.
4	Digital Literacy	Students may have acquired sufficient digital literacy & competence using school or university computers; even - in the absence of take-home computers.
5	Academic Achievement	Computer assignments may not be relevant to student academic course completion
6	Improved Employability Skills or Career Readiness	Students may be intrinsically motivated. Through university courses or career & placement services, peer exposure, professional mentorship & social structures - may receive relevant career readiness & guidance, apart from mentorship
7	Placements	Students success in placements may be mediated not just through their intrinsic skills & mentor networking support; but, also through the strength of placement cell in university, or their personal choices in appearing for placements.

The Theory of Change as hypothesized, is given in Figure 1, below:

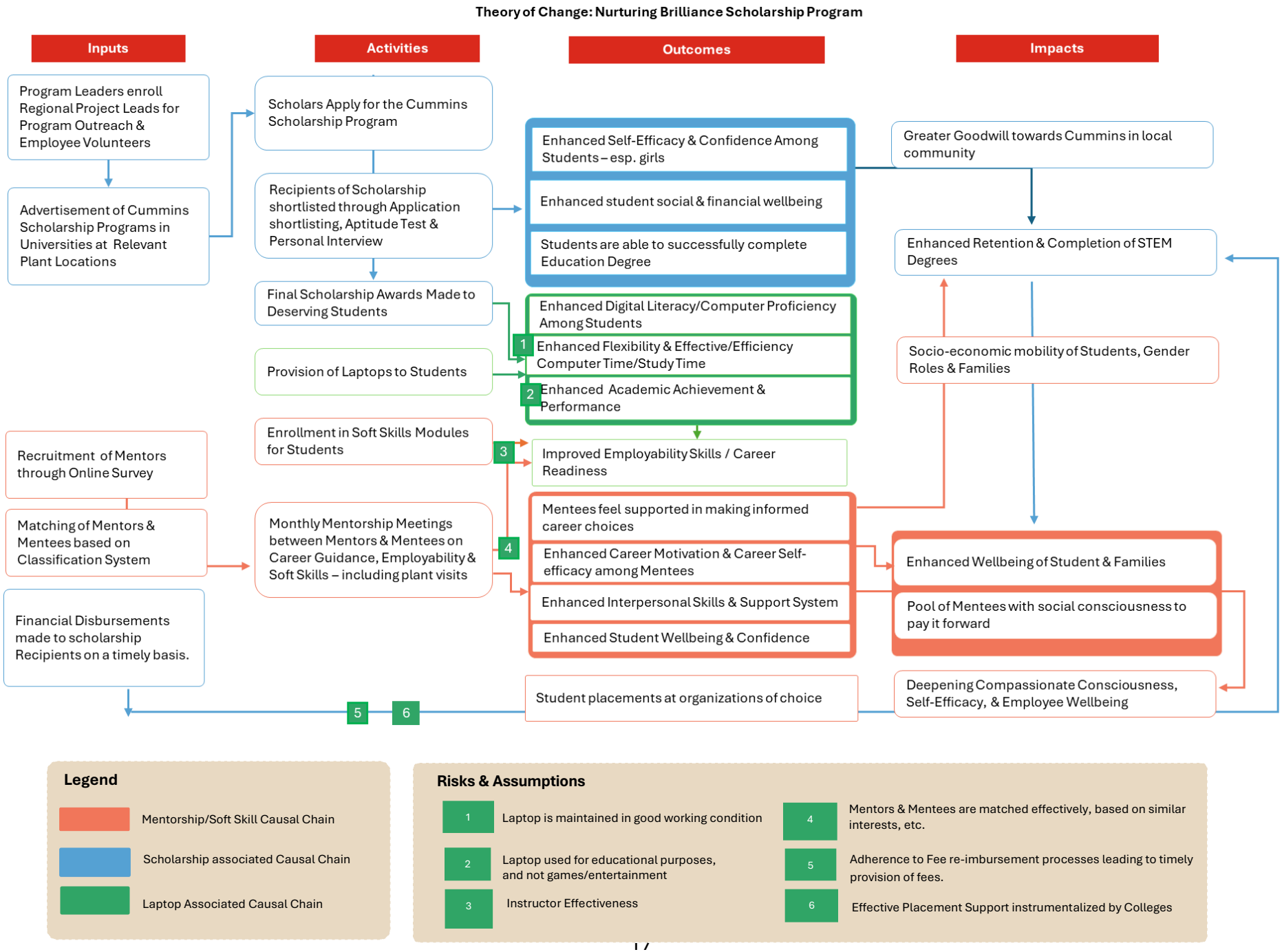


Figure 4: Initial Theory of Change

The broad set of indicators associated with the specific outcomes and impacts as outlined by the ToC are listed below:

Table 3: Tentative Indicators & Means of Verification

Tentative Indicators & Means of Verification				
#	Impacts	Tentative Indicators	Means of Verification	Stakeholders
1	**Impact #1:** Enhanced Retention & Completion of STEM Degrees	• % Students reporting having to drop out/leave degree incomplete in absence of Cummins Scholarship Program • % of Students completing STEM Degrees	Semi Structured Interviews	Scholarship Recipients; Program Leaders
		• Ways & Means Cummins Scholarship supported Student Retention & Completion of STEM Degrees	Qualitative Interviews	Scholarship Recipients
2	**Impact #2:** Socio-economic mobility of Students & Families (First Generational Learners, Occupational Mobility, Enhanced Economic Situation)	• % Students from Families as First Generation Learners • % of Girls who are first generation learners	Quantitative Semi-Structured Surveys	Scholarship Recipients
		• No. of students with enhanced earnings/salary package, in comparison to Parents	Quantitative Semi-Structured Surveys	Scholarship Recipients
		• % of students with occupational mobility • % of first-generation females who are economically independent	Quantitative Semi-Structured Surveys	Scholarship Recipients
		• % of students who are able to guide siblings/friends in making career choices / soft skill choices.	Quantitative Semi-Structured Surveys	Scholarship Recipients
		• Perceived changes in socio-economic standing of the family	Qualitative Interviews	Family Members of Scholarship Recipients, Scholarship Recipients
3	**Impact #3:** Pool of Mentees with social consciousness to pay it forward	• % of Mentees willing to act as future mentors for Cummins Scholarship Program • Perceived changes in mentee social consciousness to pay it forward through Cummins Programs	Semi Structured Interviews + Qualitative Interviews	Scholarship Recipients
4	**Impact #4:** Deepened Compassionate Consciousness, Well-being, Self-Efficacy, and Employ Wellbeing	• Impact of Mentorship Program on job-satisfaction and well-being of mentors themselves	Qualitative Interviews	Mentors
5	**Impact #5:** Greater Goodwill towards Cummins in Local Community	• Perceptions around Cummins	Qualitative Interviews	Scholarship Recipients, Families
#	Outcomes	Indicators	Means of Verification	Stakeholders
6	**Outcome #1.1:** Enhanced Self-Efficacy & Confidence Among Students - esp. girls	• % of students reporting enhanced self-efficacy and confidence across males and females • Student Wellbeing	Semi-structured interviews , Qualitative Interviews	Scholarship Recipients, Families

7	**Outcome #1.2:** Enhanced student social & financial wellbeing	• % of students who may have had to take loans in the absence of scholarship • % reduction in expenditure (overall education) due to scholarship support • Student perspective on scholarship's contribution to social wellbeing (recognition, social support, appreciation etc.) • Student perspective on scholarship's contribution to economic wellbeing • % Students reporting reduction in education debt on account of scholarship	Semi Structured Interviews, Qualitative Interviews	Scholarship Recipients, Families
8	**Outcome #1.3:** Students are able to successfully complete Education Degree	• % Students reporting having to drop out/leave degree incomplete in absence of Cummins Scholarship Program • % of Students completing STEM Degrees • Threats to successful completion of the education degree • Nature of Difficulties student may have encountered in the absence of scholarship	Semi Structured Interviews, Qualitative Interviews	Scholarship Recipients, Families
9	**Outcome #2.1:** Enhanced Digital Literacy/Computer Proficiency Among Students	• % of students reporting enhanced ease of using computers + increase in computer skills	Semi Structured Interviews, Qualitative Interviews	Scholarship Recipients
10	**Outcome #2.2:** Enhanced Computer Flexibility & Effective Computer Time	• % of students reporting absence of functional home-computers / lack of access • Impacts of Cummins Laptops on Study Times & Routines of Students • Additional skills acquired using home-computers	Semi Structured Interviews, Qualitative Interviews	Scholarship Recipients
11	**Outcome #2.3:** Enhanced Academic Achievement & Performance	• Perceived benefits/utility of laptops provided by Cummins vis-à-vis college computers • % students who use laptops for academic purposes, vis-à-vis other uses • % students with extended study time due to laptop usage	Semi Structured Interviews, Qualitative Interviews	Scholarship Recipients
12	**Outcome #3:** Improved Employability Skills / Career Readiness	• % of students feel confident in job application process/employability skills • % of students who have got placed with jobs • Student case stories of impact of mentorship of career readiness	Semi Structured Interviews + Qualitative Interviews + Case Stories	Scholarship Recipients
13	**Outcome #4.1:** Mentees feel supported in making informed career choices	• Student case stories of impact of mentorship of career readiness • Avg. score on career guidance provided by mentors on career direction • % students reporting their mentor helped them craft an actionable POA to achieve their career direction	Semi Structured Interviews + Qualitative Interviews + Case Stories	Scholarship Recipients; Mentors
14	**Outcome #4.2:** Enhanced Career Motivation & Career Self-efficacy among Mentees	• % students reporting feeling enhanced career motivation, self-efficacy • Impact of mentors on student career motivation, self-efficacy among mentees	Semi Structured Interviews + Qualitative Interviews + Case Stories	Scholarship Recipients; Mentors
15	**Outcome #4.3:** Enhanced Interpersonal Skills & Support Systems	• % students reporting deepened interpersonal skills & relationships • % students reporting deepened support system • Case Stories	Semi Structured Interviews + Qualitative Interviews + Case Stories	Scholarship Recipients

16	**Outcome #5:** Student placement	• Average salary/package of placed students	Semi Structured Interviews + Qualitative Interviews + Case Stories	Placement Officers, Program Lead, Mentors, Students

List of Constructs*:* Some, among the list of indicators utilized a series of constructs used to measure these parameters holistically. Constructs refer to abstract concepts - such as self-efficacy, compassionate consciousness, digital literacy, mentoring relationships etc. which may not be directly measured; however, can be measured indirectly vis-à-vis a list of observable and measurable variables. While it was not always possible to include constructs/scales as is - in the interest of practical limitations of time & modality; however, they were actively referenced in questionnaire construction across quantitative and qualitative tools to ensure relevant & important factors were not left behind:

Table 4: List of Constructs and Recommended Instruments of Measurement

#	Construct	Instrument of Measurement
1	Self-Efficacy	General Self-Efficacy Scale (Schwarzer, R., & Jerusalem, M, 1995) measures a general sense of perceived self-efficacy to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events[14]. For the specific purpose of this evaluation, we referred to GSE 3 - a three item scale constructed with excellent quality criteria, such as objectivity, reliability, factorial, and construct validity, and scalar measurement: Reference: Doll, E. S., Niemen, D., Schmidt, I., Ramstad, B., & Lechner, C. M. (2021). The General Self-Efficacy Short Scale-3 (GSE-3): An Eng lish-language adaptation. Zusammenstellung sozialwissen schaftlicher Items und Skalen (ZIS). https://doi.org/10.6102/zis294
2	Compassionate Consciousness	While Compassionate Consciousness might be hard to measure; however, Compassion for others can be measured through standardized scales[15], such as the one constructed by Kristenn Neff and co-authors. (Pommier, E., Neff, K. D. & Tóth-Király I, 2019) - based on four principles: Kindness, Common Humanity, Mindfulness, and Indifference Items.
3	Digital Literacy	Digital Skills & Literacy scale borrowed from the *G20 Toolkit for Measuring Digital Skills and Digital Literacy: Framework and Approach* report[16]. The Scale examines multiple aspects of digital literacy including Communication, Collaboration, Social Media Use, Skills & Innovation etc. The scale was adapted for an engineering context, covering both foundational and advanced skills.
4.	Mentorship Effectiveness	Mentorship effectiveness was measured by incorporating a scale, identifying *Similarity, Empathy, Trust & Availability, Networking, Autonomy* as factors influencing mentorship effectiveness. Career Direction is not a part of the scale; however - has been included due to its relevance towards the program. The original paper may be viewed here: Measuring mentoring in employability-oriented higher education programs: scale development and validation | Higher Education

[14] Schwarzer, R., & Jerusalem, M. (1995). *General Self-Efficacy Scale (GSE)*. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35–37). NFER-NELSON. https://doi.org/10.1037/t00393-000

[15] Neff, K. D. (2021). *Self-compassion scale information* [PDF]. Retrieved December 12, 2025, from https://self-compassion.org/wp-content/uploads/2021/03/CS-information.pdf

[16] United Nations Economic and Social Commission for Asia and the Pacific. (n.d.). *[Title of Document]* [PDF]. Retrieved December 12, 2025, from https://repository.unescap.org/server/api/core/bitstreams/84fd14a4-8e4b-4d82-8d41-1804b9457ac9/content

6. Research Design, Sample Size & Research Methodology

The Study utilized a **Retrospective Pre-Post Test Design.** This design was positioned to analyze the difference in outcomes from two frames of reference i.e. post the intervention, and prior to the intervention. For instance- how a participant may choose to rate career motivation levels prior to the scholarship and post the scholarship. For this, Data was collected utilizing both quantitative and qualitative methodologies - including semi-structured surveys, key informant interviews, and focus group discussions.

Semi-structured surveys contained both close-ended and open-ended questions. The open-ended questions followed a contribution analysis approach, to streamline how and why change occurred. The Focus Group Discussions and Key Informant Interviews were used to substantiate outcomes, and triangulate similar insights from multiple vantage points.

Sampling & Research Methodology

Following a Retrospective Pre-Post Test Design, the sample size was calculated at 220 students for semi-structured surveys. The study captured 221 interviews. Following a population proportion to sampling method - by design;186 students were diploma students, and 35 were Degree students - maintaining the 84% and 16% split of Degree to Diploma students.

Table 5: Sampling Distribution

Stakeholder	Sample size	Sample Size Achieved	Type of Interview
Students	220 (185 Degree + 35 Diploma Students)	221 (186 Degree + 35 Diploma Students)	Semi-structured surveys[17]
Students	5	4	Focus Group Discussions
Mentors	6	6	Key Informant Interviews
Placement Officers	5	5	Key Informant Interviews
CSR Team	1	1	Key Informant Interview
Parents	4	4	Key Informant Interview
Employee Volunteers	1	1	Focus Group Discussion
Total	242	242	

A 50:50 split was to be maintained for males and female students, to ensure adequate female representation. 114 Females were covered in the survey, and 107 males[18]. The students were also divided among the 11 cities to ensure adequate geographical representation proportionate to the population.

[17] Sample Size Calculated using G-Power, under the following assumptions: T-Test, Difference Between Means, Matched Pairs. Two-Tailed Test, with 0.05% Margin of Error, 80% Power, and Effect size of 0.2 (Cohen's D). A Design Effect has not been applied – as it would significantly inflate sample size beyond study scope. Total SS is 199. With 10% Attrition – SS is coming to 218, rounded off to 220 for simplicity. The sample would be selected using stratified random sampling. This might negate the minimal clustering impacts caused due to heterogeneity of sample selection. The Sample is also strong enough to predict outcomes at 90% CI, and 7% Margin of Error, with a conservative Design Effect of 1.36 Applied for minimal clustering impacts – accounting for the fact that the study is heterogenous in spread + accounting roughly for 6% attrition for post-only results.

[18] Minor variations are attributed to student attrition during the survey. Students were replaced from similar colleges, locations, and degree vs diploma courses to maintain adhere to sampling strategy to the extent possible.

Table 6: City Wise Sampling Distribution

City	No. of Students	Sample Size Achieved
Ahmednagar	9	10
Guna (MP)	12	14
Indore	21	20
Jamshedpur	20	19
Nagpur	5	4
Osmanabad (Maharashtra)	4	4
Phaltan	62	63
Pune	64	63
Ranchi	2	2
VCPL	3	3
Vidisha (MP)	20	19
Total	220	221

Sampling Method: For semi-structured interviews, a Stratified Random Sampling Approach was adopted. This sampling approach splits the population into strata, or criteria of interest. The sample is then randomly picked from within the constraints of these strata to ensure adequate representation. The strategy essentially allows the study to overcome sampling bias - i.e. confounding factors likely to influence or bias results our outcomes of the study, while ensuring adequate representation from our strata of interest.

The sampling stratification criteria considered were: gender, degree vs diploma, university, and location of students. These were actively controlled for, while constructing the sampling frame. Other confounding factors - year of study, no. of years since receiving scholarship etc. were left to random variation that would naturally arise from picking samples randomly.

To construct the sample frame, the IA Team shortlisted colleges with 5+ students (for logistical ease), and shortlisted 5 students - with every third student selected for the survey. Students for the FGD, Mentors, Placement Officers and Parents were picked using Random Sampling or Snowball Sampling. On the other hand - Employee Volunteers - Community Involvement Team (CIT) Regional Support Members, were picked purposively for the study.

Data Collection Method: Semi-Structured tools were digitized on Qualtrics – a cloud platform for data collection, with validation and range checks embedded into the tool to ensure data quality. The tools were internally tested multiple times to ensure smooth operation of the tool. The Data Collection was conducted by a team of 6 Field Researchers in November and December over Microsoft Teams Calls, with a camera on mode

- depending on student comfort, to ensure data collection was happening holistically. Qualitative tools were also digitized using Qualtrics, and data was entered on respective tools during the interview process.

Training, Data Cleaning & Debriefing: Prior to Data collection, day long training was conducted to induct them into the project context, the tool, and a practice session was conducted for researchers to familiarize themselves with the Qualtrics tools. Researchers were also trained on data collection protocols, ethics, and demonstrate care during semi-structured interviews. To ensure data quality was in line with expected standards, cleaning and debriefing sessions were held on a day-to-day basis to rectify any errors, or check for invalid outliers in data.

Ethics & Consent: The IA Team also followed a stringent consent protocol. Prior to contacting students - Cummins contacted colleges for permissions from respective colleges for Consent. These were combined with student consent, to ensure that students were informed about the study context, their rights, associated risks, incentives, and data handling protocols on submission of data. The data was cleaned, analyzed, and triangulated with additional stakeholder interviews to further substantiate points from different vantage points.

Chapter I: Demographic Profile of Respondents

The following chapter talks about the demographic profile of respondents interviewed as part of the survey:

1.1 Gender

The study sample was designed to achieve a 50:50 ratio of males and females. Out of the total respondents (N=221), 52% (n=114) of the respondents identified themselves as female while 48% (n=107) respondents were reported to be males.

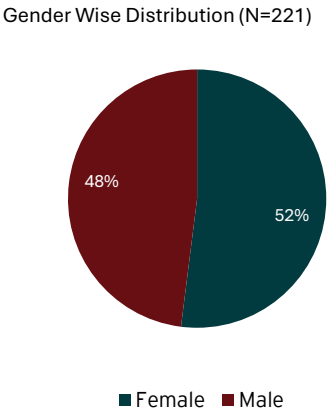
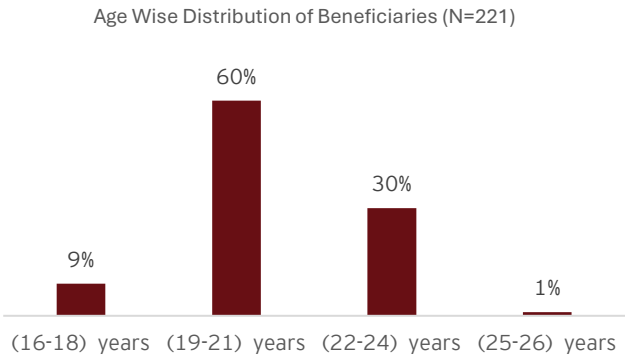


Figure 5: Gender Distribution of Respondents

1.2. Age Distribution



The respondents receiving scholarship support ranged across age from 16 years to 26 years. 9% (n=20) candidates ranged between the age groups from 16-18 years of age. 60% of the respondents (n=132) fall into the range of 19-21 years. 30% (n=66) respondents ranged in the age group 22-24 years. Given that most participants were undergraduate students, only 1% students (n=3) belonged to the age group of 25-26 years.

Figure 6: Age wise Distribution

1.3. Course Wise Enrolment Distribution

The scholarship was awarded to students from multiple disciplines including Computer Science, Electrical/Electronics, IT, Mechanical, AI/ML, Civil, Metallurgy and Minerals. 54% (n=119) of the respondents belonged to Computer Science, followed by 20% (n=44) respondents in Electrical/Electronics and 8% (n=19) respondents in Information Technology. Amongst the remaining respondents, 7% (n=16) respondents belonged to Mechanical, 7% (n=15) respondents in AI/ML, 3% (n=6) respondents in Civil Engineering and 1% (n=2) from Metallurgy & Material course.

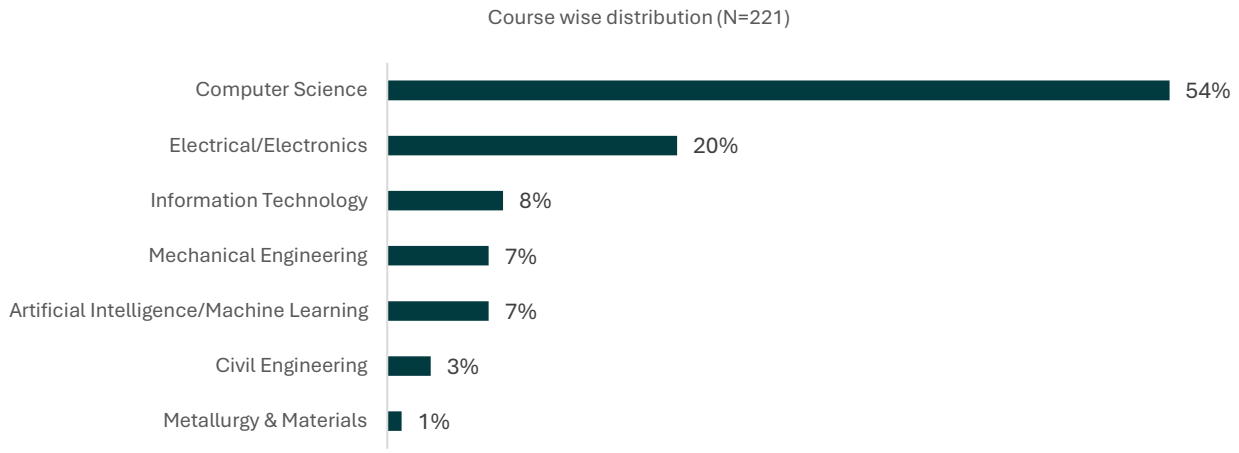


Figure 7: Course wise distribution

1.4 Type of Courses Enrolled

The sample was designed using Probability Proportional to Size (PPS), with Degree and Diploma students included in the sampling frame in accordance with this distribution. 84% (n=186) of the respondents were enrolled in degree courses whereas 16% (n=35) respondents were enrolled under diploma program.

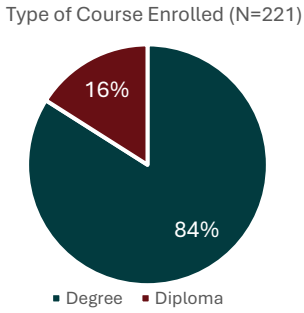


Figure 8: Type of Courses Enrolled

1.5 Years of Receiving Scholarship

The distribution shows that while the scholarship program supports students at different stages of their education, most beneficiaries receive assistance for only a short duration. This highlights an opportunity to extend support for a more sustained and long-term impact. 50% (n=110) of the respondents received scholarship support for 1-2 years, followed by 38% (n=84%) respondents for 2-3 years and 10% (n=23) respondents for less than a year. 2% (n=4) respondents have also been supported for 3-4 years.

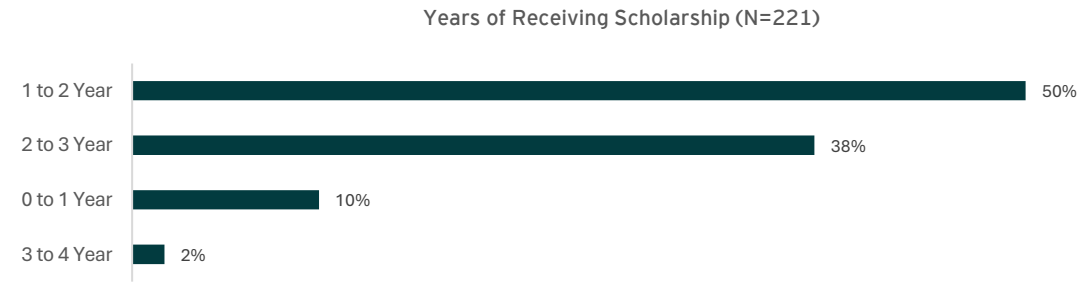


Figure 9: Years of Recieving Scholarship

1.6 Social Category wise Distribution

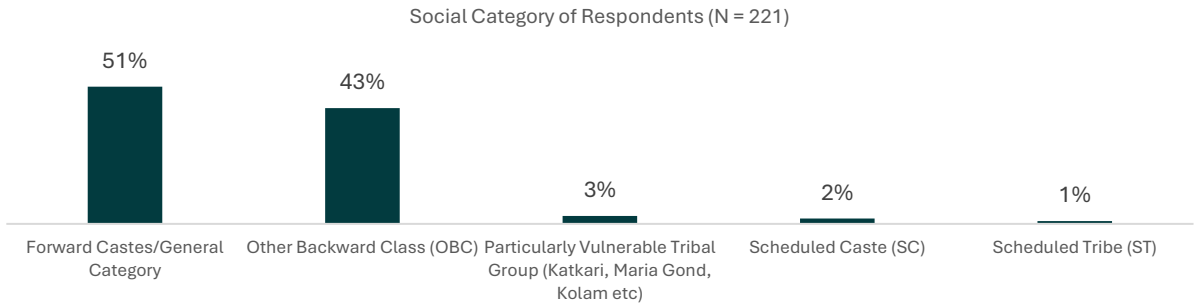


Figure 10: Social Category of Respondents

The scholarship supported students across the demographic dividend and included representation of PVTGs, SC, ST, OBC and General Category candidates.

As per the study, 51% (n=113) respondents awarded scholarships came from General category, followed by 43% (n=96) students from Other Backward Classes, 3% (n=6) students from PVTG (Particularly Vulnerable Tribal Group), 2% (n=5) students from Scheduled Caste and 1% (n=1) candidate from Scheduled Tribe.

1.7. Present year of study

The respondents covered under the study included students in their First year, second year, third year, fourth year of higher education as well as passed out students.

30% (n=67) respondents covered were the students who have passed out, followed by 29% (n=65) respondents in their 4th year, 27% (n=59) respondents in their 3rd year, 13% (n=29) respondents in their 2nd year while 1% (n=1) respondent from 1st year.

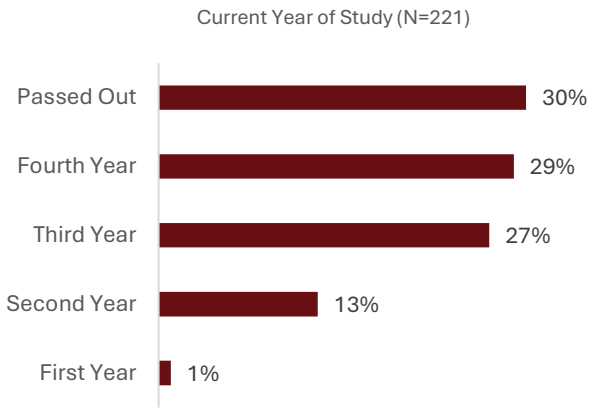
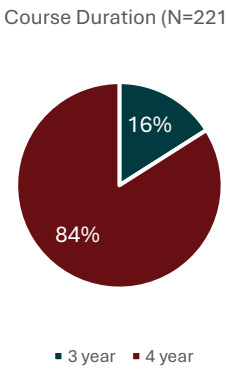


Figure 11: Current year of study

1.8. Course Duration



84% (n=185) respondents were part of a four-year course program whereas 16% respondents (n=36) were part of a three-year course duration.

Figure 12: Course Duration

Chapter 2: KEQ I - Program Relevance

KEQ 1: How is the NB scholarship and its subcomponents relevant to the needs and aspirations of economically and socially disadvantaged youth seeking an education in Engineering across degree & vocational courses?

Under OECD-DAC criteria, **Relevance**[19] stands for the degree to which the intervention's goals and design align with and address the needs, policies, and priorities of beneficiaries at the global, national, and partner or institutional levels, and its ability to remain relevant as circumstances evolve. This section will focus upon evaluating how effectively the intervention responds to and aligns with the needs and priorities of its beneficiaries. It also elucidates the program design's response towards their needs and its relevance towards supporting the economically and socially disadvantaged youth of the society.

Proof of Relevance #1: The scholarship is highly relevant for student's socio-economic lived realities

Student socio-economic context can be directly measured from the Income Status, as well as non-monetary deprivation indicators – such as access to water sources, electrification sources, and housing conditions. Taken together, – these help us understand the socio-economic realities of students, and the targeted relevance of the program.

Occupational Profile*: For nearly 67% of the students' families – income source were precarious and vulnerable to seasonal shocks* – as in agriculture and causal labour. As for the primary source of income - 53% (n=116) respondents came from agricultural backgrounds, 20% (n=44) from salaried work such as school teacher, company employee, etc, 14% (n=31) from Migrant Worker/Casual Labourer/ Contractual work as the primary source of income for their households. 11% (n=25) respondents highlighted running *kirana stores,* and 2% (n=4) respondents shared that they were not employed, and received pension support to sustain their households.

Income Profile: As shared by the respondents, the average yearly household income is calculated to be INR 1,24,520, reflecting economic precarity and highlighting the need for targeted financial support. 84% families earn less than what is required for an average rural household to sustain their daily needs[20]. With an average monthly income of INR 10,377 per month, households with multiple dependents are particularly vulnerable.

[19] Understanding the six criteria: Definitions, elements for analysis and key challenges: Applying Evaluation Criteria Thoughtfully | OECD

[20] Calculated using MPCE of INR 4122 for Rural Areas. Annual HH Income was benchmarked against (MPCE thresholds (4122)*total hh size*12).

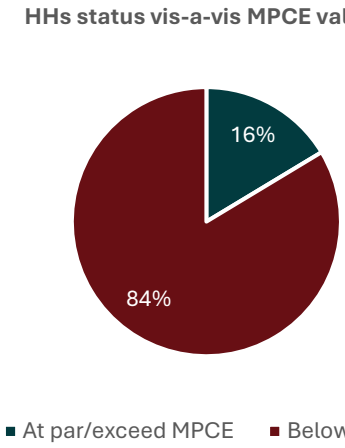


Figure 13: HH Status vis-a-vis MPCE Values

As a measure of Income levels, **the overall beneficiary profile reflects a strong concentration of financially constrained households- with nearly 57% falling below Poverty thresholds**. Of these, 43% (n=95) of the scholarship beneficiaries belong to Below Poverty Line (BPL) households, and **14% (n=30) respondents own an Antyodaya Anna Yojana (AAY) card indicating extreme economic vulnerability.**

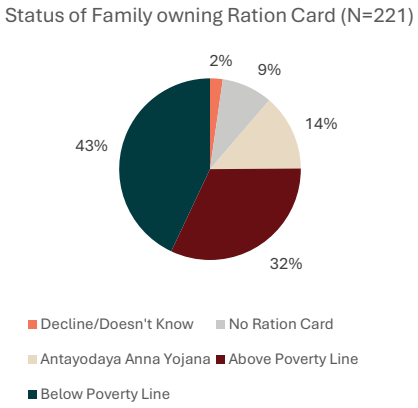


Figure 15: Status of Family owning Ration Card

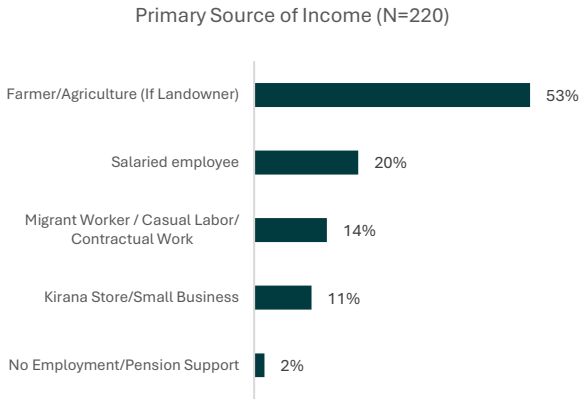


Figure 14: Primary Source of HH Income

Non-monetary poverty indicators

As a measure of non-monetary deprivation[21], the study assessed housing conditions, energy access, and access to WASH Services. Inadequate housing conditions imply limited financial resources and limited household resilience in face of disaster vulnerabilities. When these households are overcrowded, it has implications for familial physical and mental health. Poor energy access reflects not only monetary deprivation, but health risks posed by using cookstoves exposing families to harmful gases, and drudgery, whereas water sources vulnerable to contaminants, and unimproved toilet facilities reflect poor living

[21] Indicators are borrowed from the Alkire Foster Multidimensional poverty index. A full MDPI measurement was beyond the scope of project – however, indicators provide an indicative glance at student socio-economic realities.

conditions, and households vulnerable to frequent water borne diseases. The study reflects, that students suffer from multiple forms of deprivation – across housing, energy access, and access to safe drinking water – more on this below. **Taken together – these imply, that student targeting is highly relevant to student living conditions, and their pursuit of socio-economic mobility.**

Housing & Overcrowding: While 57% (n=126) respondents reside in pucca houses, a substantial **43% (n=94) live in *non-pucca housing*.** 29% (n=64) of these, live in semi-pucca and 14% (n=30) in kuccha houses. **Of these, 75% (n=166) respondents also mentioned living in overcrowded household** with more than three members residing in a room. It emphasizes that a significant portion of students come from constrained household settings that could pose additional challenges alongside their educational pursuits.

Household Energy Profile: The household energy profile of scholarship recipients reflects underlying

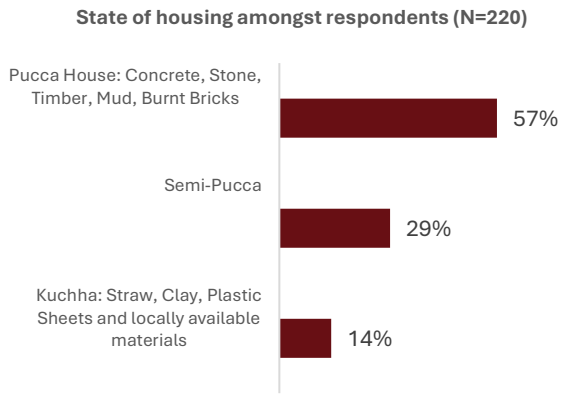


Figure 17: State of housing amongst respondents

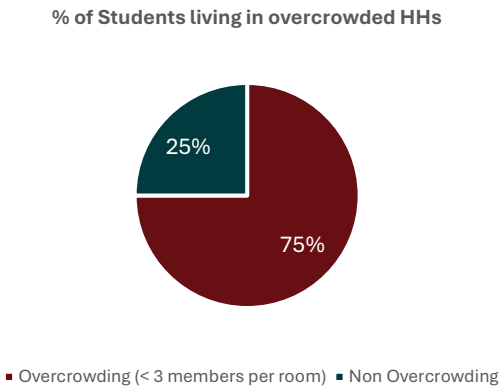


Figure 16: % of Students living in overcrowded HHs

socioeconomic disparities. While 87% (n=191) of students come from households using relatively cleaner energy sources such as LPG, CNG, or electricity, **13% (n=29) rely on traditional fuels including firewood, charcoal, animal dung, and kerosene an indicator of economic deprivation and limited access to basic infrastructure.**

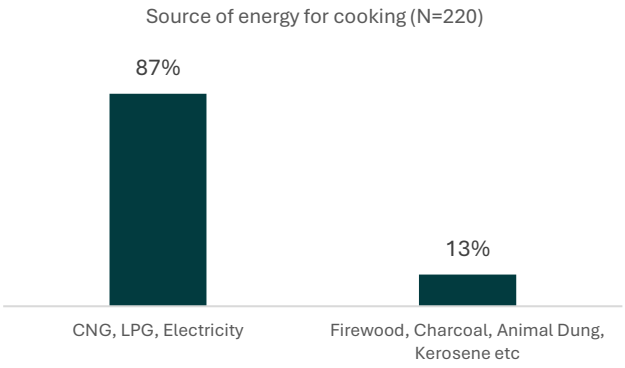


Figure 18: Source of energy for cooking

WASH: Access to drinking water further reflects the uneven living conditions of scholarship recipients. 84% (n=184) of students reported access to protected water sources, 16% (n=36) continue to depend on unprotected sources of drinking water sources such as lakes, ponds and open wells, indicating pockets of infrastructural and environmental vulnerability within the beneficiary group. When viewed alongside housing

quality and household energy use, this pattern points to layered socio-economic constraints that shape student's everyday realities beyond income alone.

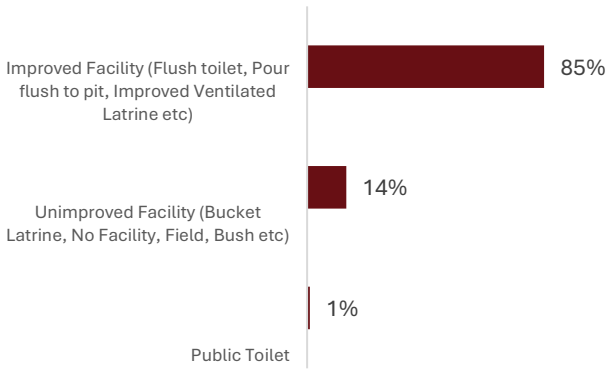


Figure 20: Toilet Access at HH level

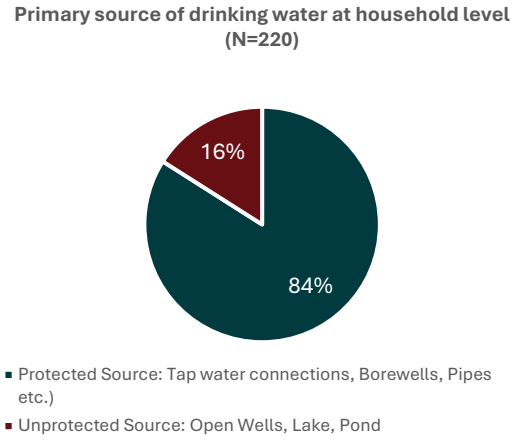


Figure 19: Primary Source of Drinking Water

Further, **15% (n=32) scholars come from backgrounds where their households don't have access to personal household toilet facilities**. 14% (n=30) respondents mentioned access to unimproved toilet facilities at household level, and 1% (n=2) highlighted utilizing public toilets. This reflects the socio-economic gap in basic living conditions of the households.

The overlapping deprivations- spanning housing, energy, access to toilets, and safe drinking water underscore the broader context in which students pursue higher education. **The scholarship therefore operates within an ecosystem of structural disadvantage supporting whose educational journeys are influenced by multiple interlinked forms of household-level vulnerability.**

Proof of Relevance #2: Full Tuition Fee cover supports HHs in coping with financial stresses & reduced indebtedness; however, continues to pose stresses even among covered students.

The average yearly expenditure of a student's expenses are INR 1,38,287. The maximum share amongst this goes towards the payment of tuition fees – which constitutes nearly 51% of the education expenses, followed by accommodation and food related expenses. Stationery, transport and additional charges such as registration, and development fee are additional marginal costs. Through the scholarship, on average - Cummins is able to take care of expenses worth INR 70,968, which equals almost **51% of the total education expenses**, and **57% of the average yearly household income**, now turned into savings**. On an economic front, such financial support plays a transformative role in the lives of the students as well as the family, with significantly reducing the financial burden.** It creates an ecosystem where the student can focus on its aspirations, perform better academically and instill a sense of stability.

Table 7: Expenditure Break up of student expenses

Expenditure Item	Average	Median
Yearly Accommodation Expenditure	28,169.34624	24,000
Yearly Tuition Expenditure	70,864	62,496
Yearly Transport Expenditure	6,340	0
Yearly Stationery Expenditure	6,450.6	4,992
Miscellaneous	6,415	0
Food	20,047.2	24,000
Total Yearly Expenditure	1,38,287	1,29,600
Yearly Expenses covered by Cummins	70,968	63,000
Amount not Covered by Cummins	67,318	63,192[22]

Empowering Dreams – Away from Home:

The study revealed - that 70% (n=154) respondents had secured admissions away from their home towns, living in rented accommodation/ hostel in the pursuit of quality education. Only 30% (n=67) respondents lived in their own homes. For the 70%, apart from financial expenditures associated with the tuition fee, there is an added financial burden to bear towards accommodation expenditures. While Cummins' support has been focused on tuition fee waivers; however, for such students – affording accommodation expenditures are equivalent to affording 'opportunity'. The tuition fee support by Cummins provides critical financial relief, enabling students to redirect limited household resources towards accommodation and basic living needs. By extension – this funding support is also instrumental in closing geographical inequities in education access and livelihood opportunities. **This balancing of costs has been instrumental in allowing students to sustain enrolment, bridge inequities in access to quality education, and reduce the risk of dropout due to financial stress.**

Coping Strategies: Despite the generous scholarship support provided by Cummins – students still struggle to meet their personal expenditures. About **49% Students borrow to meet expenditures not covered by Cummins, through formal and informal sources, while 18% worked part time to meet their expenses.** When asked about the ways for financing the funding gap at household level which could not be covered under the scholarship, 72% (n=159) responses mentioned utilizing family savings/earnings to meet the expenses, followed by 29% (n=65) who mentioned borrowing money from family/relatives/informal sources and 19% (n=43) responses admitted taking loans. Also, 18% (n=40) responses suggested working part time to meet the remaining expenses. 9% (n=19) students shared that they compromised on essential needs such as food, transport etc. to reduce household expenditure. 2% (n=5) students shared they could meet the funding gap through government schemes or pension related benefits at the household level.

These coping strategies find their reflection in student reported stress levels. **Nearly 51% students mentioned some levels of stress in meeting the expenditures not covered by Cummins, indicating financial pressures persist even among covered students.** While the scholarship addresses core education expenses,

[22] Average and median values of yearly household expenditure are represented to show the spread of the data. The close proximity of average and median values reflect the authenticity and validation of the economic household expenditure related data. The median values for yearly transport expenditure reflects "0" as most of the respondents stayed in hostels/rented accommodation in close vicinity to their college/institutes. The median value for miscellaneous expenditures reflects "0" as the respondents didn't mention any other miscellaneous expenditure costs.

students continue to incur additional costs (accommodation, transport, exam & registration fee, etc) that are not fully covered, For the level of expenses, not being covered under Cummins scholarship, 36% (n=79) respondents reported their stress levels as somewhat stressful, and 15% (n=33) respondents reporting extremely stress. These stresses were often triggered in situations where household members or dependents were chronically ill, number of dependents were large (relative to hh income), or income gains were unsteady. For 29% (n=64) respondents, meeting personal expenditures was nor too stressful or too easy. Another 20% respondents mentioned mild to no distress. The findings suggest that although the scholarship provides deeply important essential relief, uncovered expenses continue to create varying levels of financial strain which may affect students' academic focus.

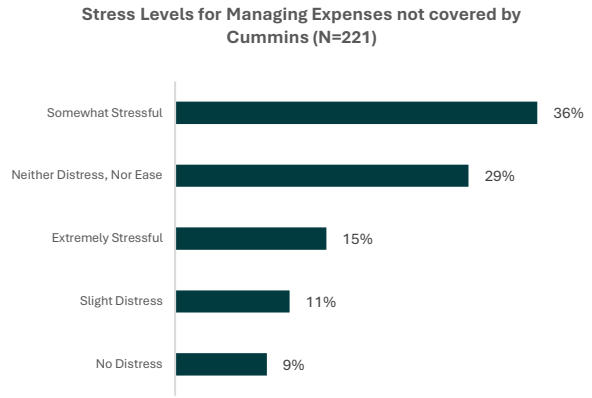


Figure 21: Stress levels for managing expenses not covered by Cummins

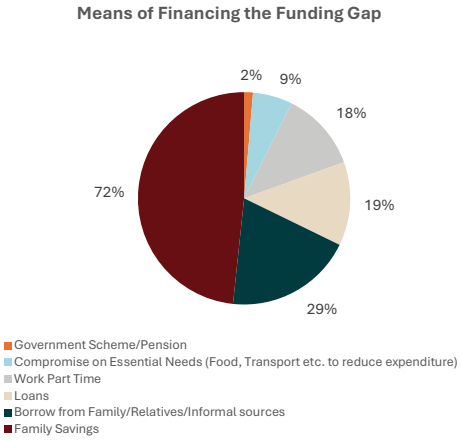


Figure 22: Means of financing the funding gap

These coping strategies reflect the financial fragility of households, where education expenses often compete with basic family needs. **By offsetting a portion of education costs (nearly 51%), the scholarship limits dependence on debt and excessive work hours, enabling students to prioritize academic engagement and sustain continuity in higher education.** However - given varied student contexts and financial circumstances, there is scope to further reduce these financial pressures by increasing scholarship coverage to other areas - including accommodation and food expenses, **on a case-by-case basis.**

Proof of Relevance #3: The Program Design – inclusive of technological support and mentorship support is highly relevant to beneficiary needs and conditions.

(i) Technological Support As per the study, 99% (n=218) respondents were provided laptops under the Cummins NB scholarship program. Only 1% (n=3) respondents were not provided with laptop under the scholarship program.

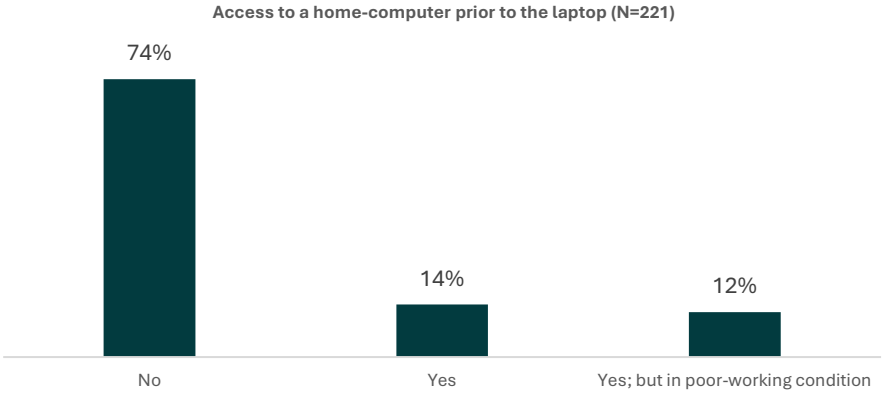


Figure 23: Access to home-computer prior to laptop

Graph 3: State of access to laptop amongst respondents before scholarship

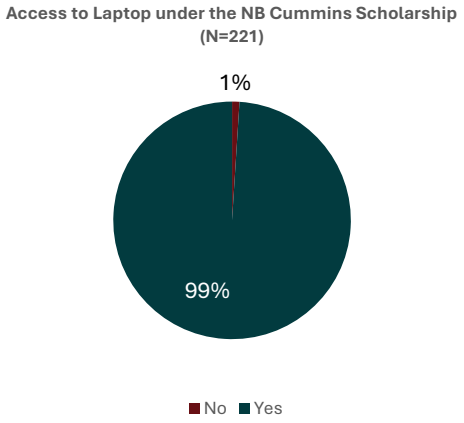


Figure 24: Access to laptop under NB Scholarship

The relevance of providing such laptops under the scholarship program becomes evident from the data, where 74% (n=164) respondents didn't have access to home computers prior receiving laptops under the scholarship program. Although 12% (n=27) respondents admitted having a home computer earlier, it wasn't under proper working conditions. The data reflects the financial situation of the household where the families could not afford personal home computers, and even in cases where they had bought them, their operating conditions remained dismal. Only 14% (n=30) respondents mentioned owning proper functional personal home computer in their households.

The provision of issuing laptops to the respondents becomes further critical due to limited access being provided to computers/laptops by the college to the students as well as the mandated course wise requirement of laptops in the classrooms for effective learning. 91% (n=202) respondents mentioned their colleges providing limited access to computers/laptops, 5% (n=10) respondents shared receiving unlimited access to college computers/laptops while 4% (n=9) respondents also highlighted being granted no access to college computers/laptops.

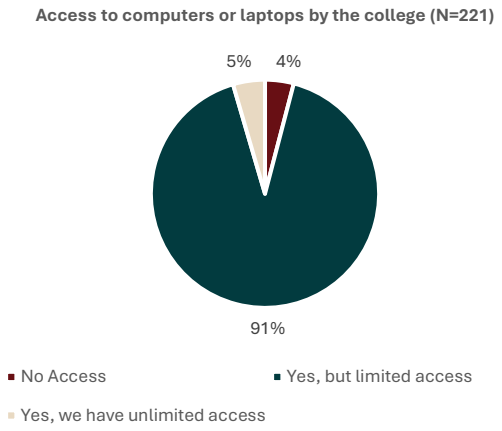


Figure 25: Unrestricted access to computer or laptop by college

Such state of access to computers/laptops at the college level acts as hindrance in achieving optimum learning outcomes as well as ensuring student friendly learning ecosystem.

Further, with 61% (n=134) respondents mentioning the requirement of laptops being mandated as per their course curriculum, the importance of having access to devices such as laptops becomes imperative for excelling in their academics as well as learning abilities. Only 39% (n=87) respondents mentioned the requirement not being mandated in their classrooms.

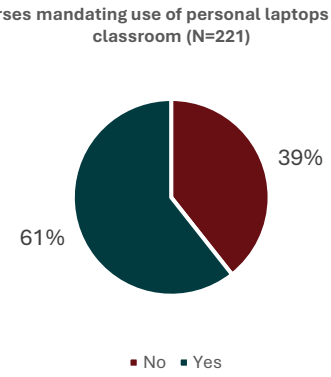


Figure 26: Course mandating use of personal laptops in the classroom

Access to personal digital devices emerged as a critical enabler of learning for scholarship recipients. The need to provide laptops to the candidates is further established where in absence of laptop from Cummins, 63% (n= 140) responses mentioned using college computers, followed by 56% (n=123) responses revealed borrowing laptop from friends and 40 % (n=88) responses opted for self-financing laptops to meet their learning needs as alternative options. Further, 14% (n=31) responses mentioned taking other suitable measures, 10% (n=22) mentioned using cybercafé and 9% (n=19) responses shared using home computers, 5% (n=12) responses highlighted their state of not being able

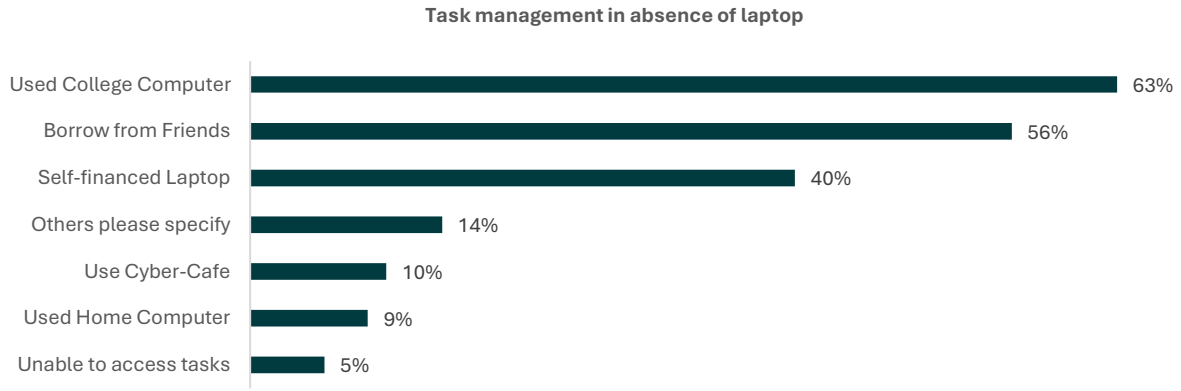


Figure 27: Task management in absence of laptop

to access tasks in the absence of laptop from Cummins. These alternatives offered limited and fragmented access, as computer labs operate within fixed hours, borrowed laptops must be returned, and cyber cafes involve additional costs and time away from academic environments, self-financing laptops would have significant financial burden.

The provision of laptops has therefore significantly enhanced students' ability to study consistently and independently, allowing flexible use beyond institutional constraints. With uninterrupted access to learning materials and online resources, students are able to allocate more time to academic work, improve productivity, and engage more meaningfully with coursework.

(ii) Mentorship support for First Generational Learners

The scholarship program is designed to address structural barriers to education and student socio-economic mobility. Mentorship support and soft-skills training provides the much needed guidance to students - who are among the first from their families to navigate graduate studies, and placements. An analysis of the beneficiary profile highlights how the program meaningfully responds to these realities.

Among the scholarship recipients, 13% (n=29) are first-generation school learners, meaning they are the first in their families to access formal schooling. This group represents households where educational access has historically been limited due to poverty, lack of awareness, intergenerational exclusion, or livelihood pressures.

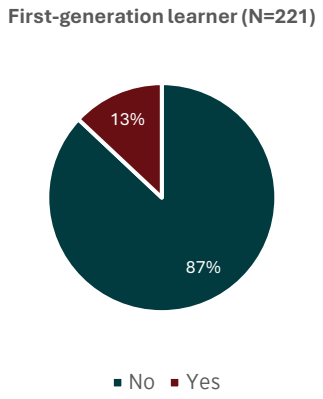


Figure 28: First Generation Learners in family

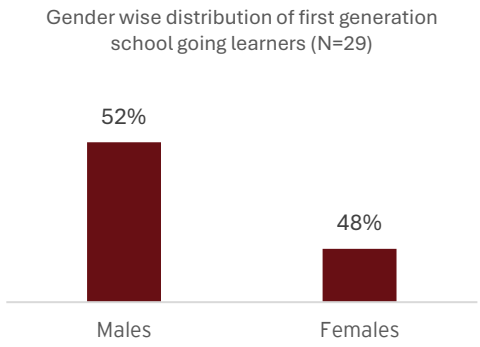


Figure 29: Gender wise distribution of first generation school going learners

Within this segment, 52% are male and 48% are female, indicating a near-equal gender distribution and suggesting that the scholarship is enabling access across genders within highly marginalized families.

For first-generation learners, the pathway to education is often accompanied by multiple challenges such as financial instability, absence of academic guidance at home, and social norms that deprioritize sustained schooling. **In such contexts, the scholarship does not merely function as financial support; it acts as a gateway to continued participation in education, reducing the likelihood of dropouts and reinforcing education as a viable long-term aspiration for the household.**

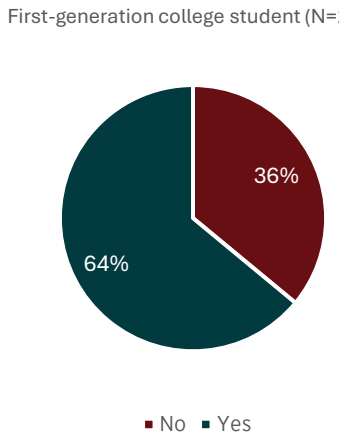


Figure 30: First-generation college student

Further, **64% (n=142) of the scholarship recipients are first-generation college students**, while 36% (n=79) come from families where someone has previously accessed higher education. The **high proportion of first-generation college students underscores the scholarship's role in enabling upward educational mobility.** Transitioning from school to college is a critical inflection point where students from low-income families are most vulnerable to discontinuation due to rising costs, and limited exposure to higher education systems. The scholarship supports and mentorship support helps students in navigating the nuances of higher education and placements – as a catalyst in their economic mobility.

For the small sub-section of 36% of students, who come from families with past records of education degrees - these students come from families with partial or disrupted educational histories, where prior access to education has not necessarily translated into economic security. For such household's, continued education is frequently precarious and dependent on external financial support. **The program design is equipped to helps stabilize this educational trajectory, ensuring that economic shocks do not force students to abandon their studies.**

Overall, the data reflects that the scholarship is well-aligned with the socio-economic context of its beneficiaries. It supports students at critical educational thresholds, particularly those breaking intergenerational cycles of limited education. By enabling access, continuity, and aspiration, the scholarship serves not only as a financial intervention but as a mechanism for social mobility, making it both necessary and highly relevant for students navigating constrained socio-economic environments.

Chapter 3: KEQ II – Program Coherence

KEQ 2: How Coherent is the NB scholarship externally - to international & country efforts, and internally - i.e. to organizations priorities?

Under the OECD-DAC Criteria, **"Coherence"** refers to the compatibility of the intervention with other interventions in a country, sector or institution. In other words, it describes how well an intervention aligns with and complements other initiatives within a country, sector, or institution.

Broadly, coherence operates at two levels. **Internal coherence** examines the extent to which the intervention works in synergy with Cummins' own programs as well as with government and international policies. **External coherence** assesses how consistent and complementary the intervention is with the efforts of other actors and initiatives operating in the same context. Coherence as a criterion has been emphasized in the 2030 Agenda and include 'concepts of complementarity, harmonization and co-ordination, and the extent to which the intervention is adding value while avoiding duplication of effort[23] (OECD, 2021, p.10).

In line with the National Education Policy, the country aims to achieve the Gross Enrolment Ratio to 50% in higher education by 2035. With structured inequities such as caste, gender as well as socio-economic barriers, scholarships play a crucial role in ensuring a level playing field for the youth and breaking the barriers of inequalities. To support the underprivileged and weaker sections of the society, Cummins has been running special scholarship assistance program offering educational as well as financial assistance under the name "Nurturing Brilliance: Cummins Scholarship Program". The initiative displays both, internal as well as external coherence.

Internal Coherence: The scholarship program is internally coherent with the contemporary educational landscape of the country, needs and aspirations of the youth. With Higher Education being one of the core focus areas[24] (Education, Environment & Equality of Opportunity) of Cummins, the initiation of Scholarship program is rationally aligned with the organizational intervention areas. Cummins has also introduced "Every Employee Every Community" (EEEC) program, enabling employees to use at least four hours in volunteering activities with the community. It has been intrinsically linked with the mentorship component of the NB Scholarship program. Further, the designing of the program supports accessible education for the youth with focus on employability, which is distinctly aligned with National priorities and international commitments.

[23] OECD. (2021). *Applying evaluation criteria thoughtfully*. https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/03/applying-evaluation-criteria-thoughtfully_45a54ea7/543e84ed-en.pdf

[24] Increasing Cummins' impact on communities | Cummins Inc.

Table 8: Allignment with Policies/Schemes/Resolutions

Name of Resolution /Schemes /Policies	Agency	Description	Coherence with Cummins NB Scholarship Program
Sustainable Development Goal 4: Quality Education	United Nations	**Target 4.3:** By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university **Target 4.4:** By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	SDG 4 calls for inclusive and equitable access to quality tertiary education by 2030. The scholarship program rather than operating in isolation, the program complements SDG 4 by **strengthening both access and persistence in higher education through targeted financial and academic support. Its coverage across genders, social categories, and geographies** aligns with SDG4 principle, while its quality-enhancing components reinforce the SDGs shift from enrollment metrics to meaningful learning outcomes.
Sustainable Development Goal 8: Decent work and Economic Growth		Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	SDG 8 emphasizes education-to-employment linkages as a foundation for inclusive economic growth. **The scholarship program is positioning higher education as a pathway to productive employment rather than a standalone intervention.** **By integrating career guidance, soft skills development, and mentorship alongside academic support, the program aligns with SDG 8 with focus on employability, workforce readiness, and sustained participation in the formal economy.**
National Education Policy, 2020	Government of India	One of the key focus areas include ensuring equity and inclusion in higher education, financial support for students and holistic & multidisciplinary education	The program's multi-dimensional support structure complements NEP's focus on holistic development, life skills, and transitions across education stages. Importantly, **it does not substitute public education financing mechanisms but functions as a supportive layer that enhances retention, completion, and student success**- areas where NEP identifies persistent systemic gaps.
Dr. Punjabrao Deshmukh Vasatigruh Nirvah Bhatta Yojna	Government of Maharashtra	Offering scholarship support to candidates whose parents are small landholding farmers, registered labourers, or belong to the Economically Weaker Sections etc. securing admission to recognized professional programmes through the centralized admission process in Government, Government-aided, and Permanently unaided colleges, Government universities and sub-centres under the Directorate of Technical Education-excluding private deemed universities and self-financed private universities-are eligible. This does not include admissions made under management or institutional quotas. The benefits include Meal, Residence and Subsistence allowance ranging from INR 38,000 to INR 60,000 per year depending on the location in Maharashtra.	The state scheme focuses on reducing subsistence-related barriers that affect students' ability to pursue higher education, particularly those studying away from home. **While the state scheme primarily supports accommodation and living expenses, the scholarship complements it by strengthening students' academic and psychosocial adaptation to higher education environments**. Together, the two approaches form a coherent support ecosystem that addresses both material and non-material barriers to higher education continuation.

External Coherence: The Cummins Nurturing Brilliance Scholarship program also complements various scholarship related interventions being initiated by other private partners in the development sector space.

Table 9: Comparison of scholarship benefits

Description	Laptop Provision	Merit cum Means Based Scholarship	Mentorship Support	Soft Skill Training Support	Tuition Fee waiver
Organization 1: The program offers annual financial assistance of ₹15,000 for non-technical courses and ₹25,000 for technical courses, for daughters of commercial drivers in Tamil Nadu and Karnataka as they pursue higher education.					
Organization 2: The scholarship program is available to school students from Classes 1 to 12, along with learners enrolled in diploma, ITI, polytechnic, undergraduate, and postgraduate programmes across both general and professional streams. Under the initiative, students experiencing personal or family crises, or financial hardships that threaten their continuation of studies, receive financial support of up to ₹75,000.					
Organization 3: The scholarship supports meritorious undergraduate students across India in their first year of study in any discipline. Awarded on a merit-cum-means basis, it selects up to 5,000 scholars and provides financial assistance of up to ₹2 lakh over the course of the degree, along with added benefits such as networking opportunities through a strong alumni network.					
Organization 4: Financial support to meritorious girls from low-income families who have completed Class 12 and wish to pursue professional undergraduate courses, including Engineering, MBBS, Integrated LLB, Integrated BS-MS/BS-Research, Design, and Architecture, at reputed NAAC/NIRF-accredited institutions. The scholarship offers ₹1.5 lakh per year throughout their graduation degree.					
Organization 5: The merit-cum-means scholarship is intended for students pursuing technology-focused engineering undergraduate and five-year integrated programs at the top 50 NIRF-ranked universities/institutes. It fully covers annual tuition fees, as well as meal and accommodation expenses. Each Scholar receives a laptop in their first year to support their academic studies.					

Chapter 4: KEQ III – Programmatic Outcomes

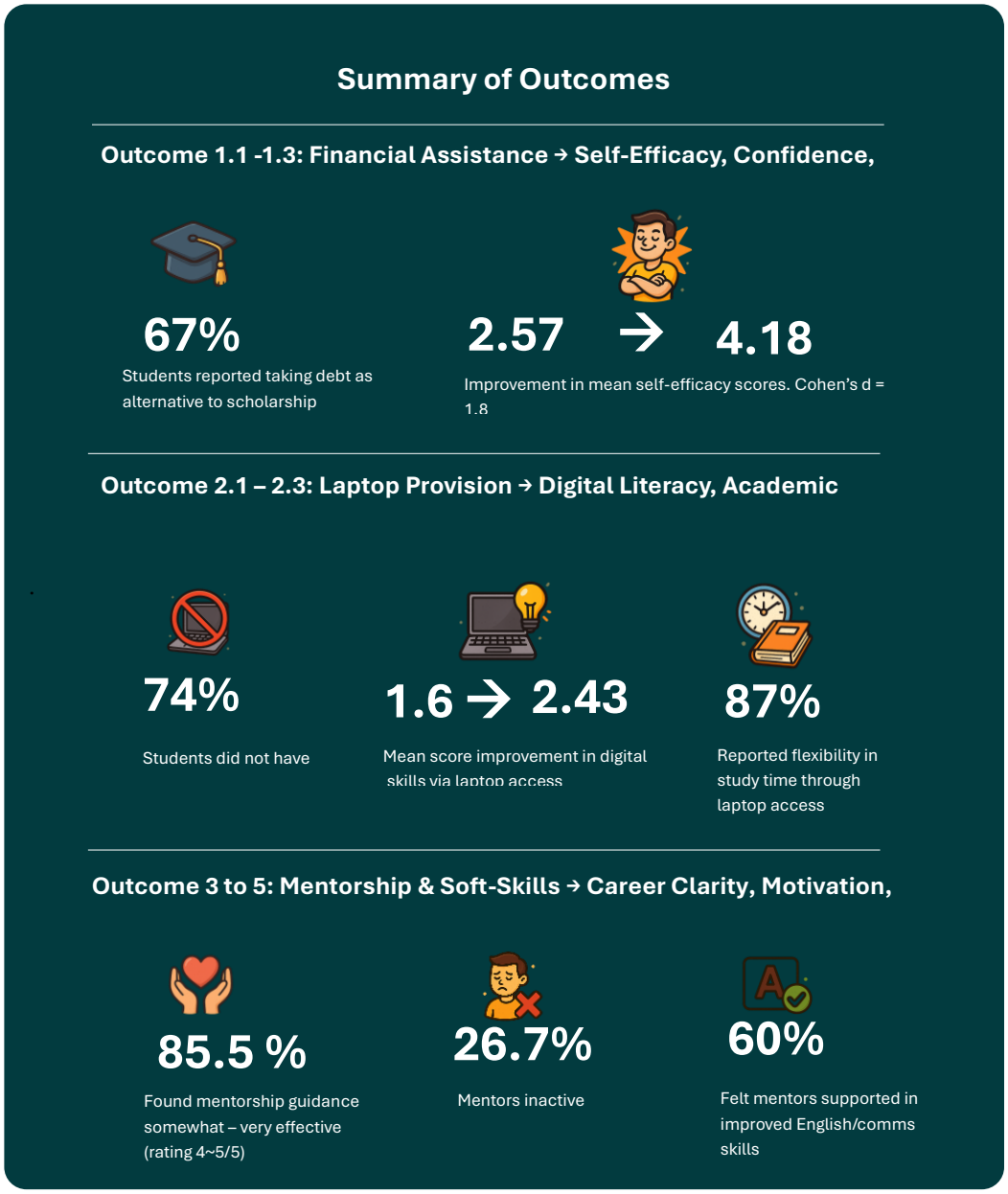
KEQ III: How Effective is the NB Scholarship design in contributing to intended outcomes, i.e., student academic achievement, digital literacy, social well-being etc.

3.1. Did the NB Scholarship produce differential outcomes for different populations - i.e. for e.g. male & female students?

3.2. What are unexpected and emergent outcomes from the program intervention?

The OECD-DAC guidelines define Effectiveness as "the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. The objectives or results refer to the progress the **intervention makes towards project objectives along the results chain / causal pathway.** The emphasis on 'differential impacts' refers to asking important 'questions about the distribution of results across different groups.

The Nurturing Brilliance Programme aims to provide support to students primarily through three primary interventions: **financial assistance for education, provision of laptops, and mentorship support**. The chapter throws light on the immediate and intermediate changes experienced by participants. These include changes in students' confidence and self-efficacy, social and financial wellbeing, their digital capabilities, and their readiness to make informed career decisions. An infographic highlighting quick gains has been presented below:



In line with the Theory of Change, outcomes are examined across three main programme components. First, scholarship support is expected to yield outcomes related to students' self-efficacy, financial and social wellbeing, and their ability to continue and complete education. Second, Outcomes linked to laptop provision focus on students' access to digital resources, digital literacy, and academic performance. Third, outcomes associated with mentorship and soft-skills support relate to employability skills, career motivation, career-related decision-making, and interpersonal support systems. Several of these programmatic causal pathways intersect to produce or amplify specific outcomes.

This chapter throws light on whether the program's support is associated with the intended outcomes for participating in students and how each programme component contributes to these outcomes. The evidence presented in this chapter provides the basis for understanding programme performance at the outcome level and informs the subsequent chapter on programme impact.

Outcome #1.1: Enhanced Self-Efficacy and Confidence amongst Students

One of the core intended outcomes of the Nurturing Brilliance Programme is to strengthen students' self-efficacy and confidence, enabling them to navigate academic, personal, and career-related challenges more effectively. Statistical Analysis displays significant and substantially large gains in student self-efficacy and confidence levels - yielding effect sizes of **1.8+ (Cohen's D).**

Self-efficacy refers to an individual's perceived belief in their ability to cope with everyday challenges and adapt effectively to stressful life events, reflecting a general sense of personal competence (Schwarzer & Jerusalem, 1995; Doll et al., 2021)[25]. For the specific purpose of this evaluation, we referred to GSE 3 - a three-item scale constructed with excellent quality criteria, such as objectivity, reliability, factorial, and construct validity, and scalar measurement. Existing literature highlights that mentorship programs play a critical role in strengthening self-efficacy by fostering supportive mentor-mentee relationships, enhancing skills and confidence, and providing guided mastery experiences that reinforce individuals' belief in their own capabilities. These effects are further amplified when mentorship is combined with financial support, such as scholarships, which help alleviate economic constraints and enable students to engage more fully in developmental and learning opportunities that build self-efficacy.

The following table summarizes the mean self-efficacy scores for students before and after the scholarship, categorized by gender.

Table 10: Mean self-efficacy scores for students

General Self-Efficacy: Students - After, and Before the scholarship.	General			Female			Male		
	Post M	Pre M	Diff	Post M	Pre M	Diff	Post M	Pre M	Diff
I can rely on my own abilities in difficult situations	4.20	2.51	1.69	4.23	2.47	1.75	4.17	2.54	1.63
I am able to solve most problems on my own	4.23	2.60	1.63	4.30	2.54	1.75	4.15	2.65	1.50
I can usually solve even challenging and complex tasks well	4.14	2.62	1.52	4.16	2.58	1.58	4.11	2.66	1.45
Composite GSE Score	4.18	2.57	1.61						

[25] Doll, E. S., Niemen, D., Schmidt, I., Ramstad, B., & Lechner, C. M. (2021). The General Self-Efficacy Short Scale-3 (GSE-3): An Eng lish-language adaptation. Zusammenstellung sozialwissen schaftlicher Items und Skalen (ZIS). https://doi.org/10.6102/zis294

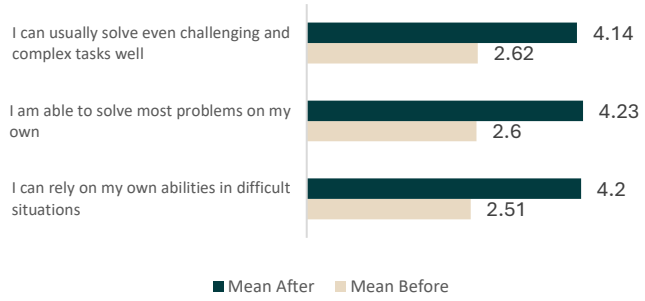


Figure 31: Mean before & after self-efficacy scores

Students were asked to rate the extent to which a set of self-efficacy statements applied to them personally, both before receiving the Cummins Scholarship and at present, using a 5-point scale where 1 indicated "does not apply at all" and 5 indicated "applies completely." The data indicates an improvement in self-efficacy scores across all students after receiving the scholarship. Students reported a strong increase in their ability to trust themselves when facing challenges. The mean score increased from **2.51 before the scholarship to 4.20 after, reflecting an improvement of 1.69 points overall**. As reported by the students, the ability to solve most problems on their own also improved, **increasing from a mean of 2.60 to 4.23**, which suggests greater independence in decision-making and a reduced sense of helplessness when facing academic or personal difficulties. Confidence in handling challenging and complex tasks showed a positive shift as shared by students, with **mean scores improving from 2.62 to 4.14**.

At an aggregate level, there **is a substantial difference in the self-efficacy scores of students prior to the scholarship, and post-scholarship. (Post Mean = 4.18) and (Pre Mean = 2.57). The mean difference of approximately 1.6 points is highly significant (paired t-test, t(220) = 26.65, p < 0.001). Against Cohen's D - the difference in effect size is substantively large - i.e. 1.8**[26]. **No significant differences in self-efficacy scores were notes amongst males and females.** The qualitative findings indicate that improvements in students' self-efficacy resulted from **multiple reinforcing factors.** Rather than a single cause, changes in self-belief emerged through financial relief, mentorship, skill development, and improved psychological well-being.

A primary driver was **reduction in financial stress**. The scholarship eased fee-related burdens and family pressure, which reduced anxiety and provided students with a sense of security. This emotional relief allowed students to focus better on academic and personal growth, leading to increased confidence and stability. **Achievement and recognition** associated with clearing a competitive selection process further strengthened self-belief. Successfully passing exams and interviews validated students' abilities and reinforced their perception of competence. Being recognized as a scholarship recipient also enhanced self-worth and pride, contributing to a positive identity shift. **Mentorship support** played a critical role in building self-efficacy. Regular mentor interactions provided guidance, reassurance, and clarity on academic and career decisions. Mentorship also strengthened communication, interview, and interpersonal skills, helping students overcome stage fear and build confidence in professional settings. Improvements were reinforced through **skill and capability development**, particularly academic, technical, and digital skills. Access to learning resources and digital tools increased students' confidence in managing coursework independently and reduced reliance on others, strengthening feelings of competence and self-reliance. The scholarship also led to **greater independence and personal agency**. Students reported increased confidence in making academic and career decisions on their own. **Psychological benefits**, including reduced sadness about family sacrifices and increased pride and dignity, contributed to improved emotional well-being. Students felt less burdened and more motivated, which positively influenced their self-belief.

An unexpected, but emergent outcome, was that several students claimed that program processes such as **interviews, exams, and training sessions** also enabled career readiness among students and enhanced their

[26] The significant impact on self-efficacy scores cannot be attributable entirely to the program. The scholarship contributes an important factor in increasing self-efficacy; however, student life experiences, mentorship support, the experience of college & graduate studies, and facing significant life challenges contribute to substantive factors impacting self-efficacy scores.

confidence. This helped students feel better prepared to handle future academic and career challenges. **Family motivation and background** acted as a complementary driver. The responsibility towards family and the desire to fulfill parental aspirations created a strong internal impetus for students to leverage the scholarship effectively.

The scholarship instilled **hope at critical junctures in students' lives**, serving as both a morale booster and a catalyst for goal-oriented action. **Mentorship and structured guidance** clarified career pathways, enabling students to set specific, achievable goals. Being a Cummins Scholar provided students with a distinct identity within the college ecosystem, which amplifies the effects of **social recognition.** Acknowledgment from faculty, peers, and the broader college community reinforced students' confidence in their abilities.

In addition to the scholarship, students' self-efficacy was positively influenced by their active engagement in college activities. Participation in paper presentations, club activities, and competitions provided repeated opportunities to apply skills which further reinforced self-efficacy.

The students were also asked to rate their confidence levels on a scale of 1 to 5, where 1 indicates very low confidence and 5 indicates very high confidence. As per the responses shared by the students, prior to the scholarship, students had a mean confidence score of 2.52, which increased to 4.49 after receiving the scholarship, reflecting an improvement of 1.96 points. A gender-wise analysis reveals that **both female and male students experienced improvement in confidence, with females improving from 2.46 to 4.47 (2.01 points) and males from 2.59 to 4.50 (1.92 points).**

Gains in confidence levels are substantive. A paired-samples t-test indicated a statistically significant increase in overall confidence scores from pre-test (M = 2.52) to post-test (M = 4.49), $t(220) = 27.85$, $p < .001$. The magnitude of this change was very large (Cohen's $d \approx 1.87$), indicating substantial improvement following the intervention. Substantive rise of confidence levels should not be entirely attributed to the program - with other factors, mentioned above - significantly impacting scores.

Table 11: Mean confidence level scores of students

Students - After, and Before the scholarship.	General (n =221)			Female (n =			Male (n =		
	Mean After	Mean Before	Improvement	Mean After	Mean Before	Improvement	Mean After	Mean Before	Improvement
Confidence Level	4.49	2.52	1.96	4.47	2.46	2.01	4.50	2.59	1.92

CONTRIBUTION PATHWAYS TO INCREASED SELF-EFFICACY AND CONFIDENCE

- Reduced Financial Stress/Barriers
- Increased Motivation & Psychological Wellbeing
- Sense of Pride Associated with Winning Merit Based Scholarship
- Improved confidence due to process-exposure
- Skill & Capability Development
- Mentorship

ALTERNATE CONTRIBUTION PATHWAYS

- Life Experiences
- Natural Result of Age/Growth
- Gaining Graduate Education & Personal Independence
- Family Motivation & Background

Outcome #1.2 Enhanced Student Social and Financial Wellbeing

The assessment reveals a significant transition in students' educational journeys. While only (13.1%) of respondents identified as first-generation learners the first in their families to acquire basic literacy a much larger proportion, (64.3%), reported being first-generation college students. This indicates that for many

families, higher education remains an unfamiliar terrain, with limited exposure to college systems, academic expectations, and the financial demands associated with pursuing a degree/diploma.

This unfamiliarity often translates into financial vulnerability. As highlighted in the relevance section of the report, when asked how they would manage household-level funding gaps not covered by the scholarship, 72% (n=159) of students indicated reliance on family savings, 29% (n=65) mentioned borrowing from family, relatives or informal sources, and 19% (n=43) reported taking loans. Against this backdrop, the scholarship plays a pivotal role, covering nearly 51% of the average annual expenditure for students. Such support not only alleviates certain level of financial stress but also acts as a critical enabler of social mobility and psychosocial wellbeing, particularly for first-generation college students who may otherwise face heightened risks of stress, isolation, or discontinuation of studies.

Insights from student focus group discussions further underscore the scholarship's transformative impact. Respondents shared that the support extended beyond financial relief enhanced their confidence, improved social status, and motivated them to strive academically. One scholar noted that the **scholarship earned them respect within their social circle and inspired juniors to seek guidance on navigating scholarship processes, reflecting the program's ripple effect on peer networks.** Students also highlighted the positive impact on their families, especially in households with multiple children pursuing higher education, where the scholarship eased economic burdens and strengthened social standing.

The earlier Impact Assessment confirmed that the scholarship covered academic fees for all selected students and included stationery support, reducing out-of-pocket expenses. In the current period, while academic fee coverage continues, stationery support has been discontinued. However, findings indicate that some students still experience financial stress related to non-tuition expenses. To address this, **Cummins could consider a need-based approach, offering holistic assistance such as stationery, hostel accommodation, and food support- on a case-to-case basis.** This targeted strategy would ensure efficient resource utilization while safeguarding the wellbeing of the most vulnerable students.

A notable **positive development in this assessment is the program's geographic expansion to aspirational districts.** By reaching students in these underserved regions, the scholarship strengthens equity and inclusion, enabling learners to pursue higher education with reduced financial stress and enhanced institutional support. This initiative reflects Cummin's commitment to fostering social mobility and academic success for students who need it most.

Outcome #1.3 Ability to Successfully Complete Education Degrees

The assessment highlights the critical role of the Cummins scholarship in enabling students to sustain their college education. When asked whether family circumstances might have led them to drop out in the absence of the scholarship, nearly one-quarter of respondents (**23.5%; n=52)** acknowledged that they may have discontinued their studies. This underscores the vulnerability created by household-level financial and situational pressures. For these students, the scholarship was not merely supportive, it was essential for continued enrolment.

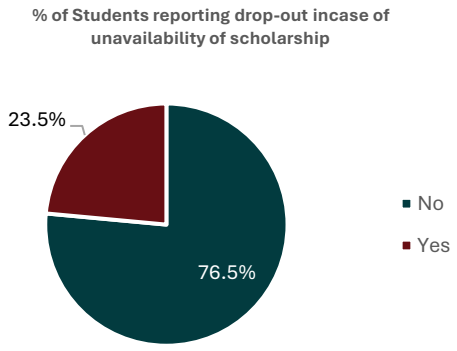


Figure 32: Students reporting drop out incase of unavailability of scholarship

At the same time, **76.5%** (n=169) of students indicated they would likely have continued their education even without the scholarship.

Qualitative insights from focus group discussions provide deeper context for these findings. Students consistently reported that financial assistance reduced family-level stress, allowing them to concentrate on academic and skill development rather than worrying about tuition or related expenses. Several noted that, without the scholarship, they would have been compelled to take part-time jobs or rely on loans, which could have delayed or disrupted their education.

> *"This scholarship has made a big difference in my life. It has reduced financial pressure in my family and allowed me to continue my studies with peace of mind. I have been able to focus on learning and improving my skills without worrying about my expenses."*

One scholar shared a personal example of financial strain: their father, managing a household budget of ₹50,000-₹70,000, had to take a loan to support their education. Without the scholarship, the family would have faced multiple loans, making higher education nearly impossible. Similarly, students spoke of peers who struggled to pay tuition fees and risked penalties situations where the scholarship provided critical relief and ensured uninterrupted learning.

Beyond tuition support, the scholarship's impact extended to academic resources such as laptop and mentorship. Students emphasized the value of laptops provided through the program, which enabled them to complete projects, practice coding, and learn programming languages such as C++ and Python skills essential for their academic and professional growth.

> *"I did not have enough money to buy a new laptop which was important for my academics as well. I asked my father for money for an old laptop, but after receiving the scholarship, I got a laptop which allowed me to complete both minor and major projects. It has helped me develop skills in web development, programming, and coding."*

Mentorship emerged as another transformative component. Scholars shared that mentors offered guidance, motivation, and clarity on career pathways, boosting confidence and aspirations. Many reflected that, prior to receiving the scholarship, pursuing advanced studies seemed unattainable; mentorship support made these ambitions realistic and achievable.

Together, these findings show that the scholarship goes beyond financial assistance, enabling students to stay focused on academics, build essential skills, and aspire to higher goals. By reducing barriers, the program strengthens students' ability to complete their degrees and transition successfully toward future opportunities.

Outcome #2.3: Enhanced Academic Achievement and Performance

Students were asked to reflect on how receiving financial aid had supported them in their academics, with the option to select multiple outcomes that best described their experience. The responses highlight that financial aid has played a critical role in strengthening **both academic continuity and academic performance among beneficiary students**.

- **Support Towards Degree Enrolment & Completion:** 72% (N=221, n=158) Cummins scholars reported that the financial support had enabled the completion of their academic degrees. For a subset of students, financial assistance played a more targeted role, with 8% (N=221, n=18) noting that it specifically enabled enrolment in the specified engineering course, highlighting its importance in facilitating access to specialized higher education pathways.

> *"I chose my X as my Stream of Education as it was cheaper than the (Other) Engineering Stream. If I had known I would have the Cummins's scholarship, I may have chosen differently"*

- **Support Towards Academic Motivation:** Closely aligned with this, nearly 1 in 7 students i.e. 69% (N=221, n=153) of students reported that financial support motivated them to perform better academically, reflecting heightened academic engagement and commitment. These gains in confidence and motivation also translated into measurable academic outcomes, with 36% (N=221, n=80) of students reporting that enhanced motivation had improved their academic scores.

This motivation was reinforced by a **reduction in financial stress**, as reported by 65% (N=221, n=143) of respondents, which appears to have eased pressures that often disrupt students' ability to focus on their studies. In addition to academic persistence, financial aid contributed significantly to students' psychosocial academic outcomes. Nearly two-thirds of students (62%)(N=221, n=138) reported an increase in self-confidence and a can-do attitude in academics, suggesting strengthened academic self-belief and resilience

- **Enhanced Attendance in Class**: Financial aid also supported **day-to-day academic engagement**, with **40%** (N=221, n=89) of students indicating that it enabled **regular class attendance**. Gains in attendance were influenced by many students, who felt they may have had to take up part time jobs to support their education-thus impacting their attendance levels at college.

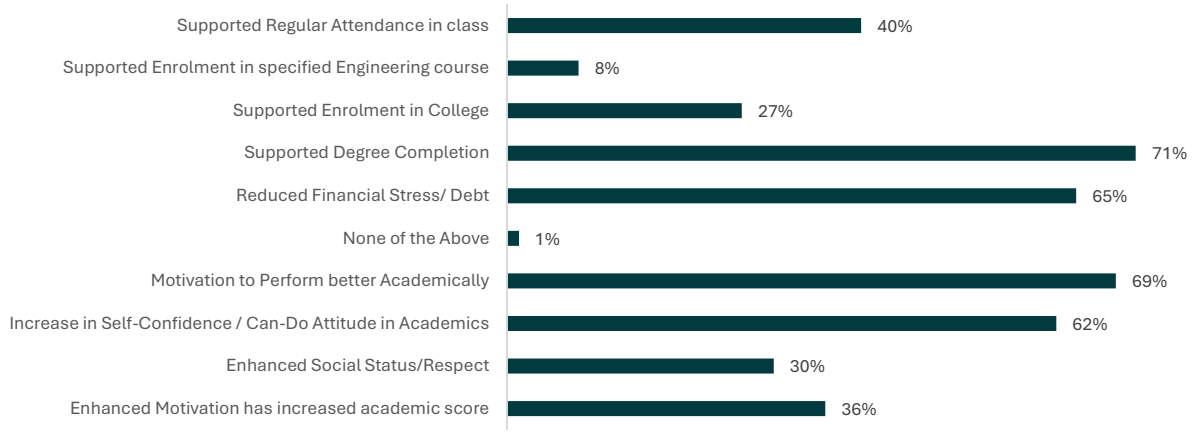


Figure 33: Distribution of responses against improvement observed in academic outcomes

Students were asked to explain why they felt that the Cummins Scholarship contributed to the improvements observed in their academic outcomes. The analysis of responses reveals that the scholarship functioned not only as a source of financial assistance, but as a **catalytic intervention that simultaneously addressed financial, psychological, academic, and social dimensions of students' lives.**

Of the themes emerging, were:

1. **Reduction of financial stress**, with students consistently describing relief from constant anxiety related to tuition fees and educational expenses. This removal of financial pressure created a sense of stability and security, which students associated with feeling calmer, more confident, and better positioned to engage with their studies.
2. Linked to this was the role of the scholarship in enabling the **continuation of education**, with several students noting that, in the absence of Cummins support, they would have had to delay or discontinue their education altogether.
3. Students highlighted that reduced financial stress **freed cognitive and emotional bandwidth**, allowing them to focus more effectively on academics. This **improved academic focus** was described

as a direct outcome of not having to worry about arranging fees or borrowing money, enabling sustained attention to coursework, examinations, and skill development.

4. For many, the scholarship also served as a strong **motivational driver**, with financial security reinforcing their commitment to studying and performing well academically.
5. The scholarship was perceived as a powerful source of **confidence and self-belief**. Students described the rigorous selection and interview process as a form of validation, reinforcing their belief in their own abilities.
6. This sense of achievement was further amplified through **social recognition**, as students reported increased acknowledgement within their colleges and peer groups.
7. The provision of complementary supports, such as laptops, was highlighted as enabling **skill development**, particularly in areas like coding and digital learning, further enhancing academic competence and confidence.

Importantly, several students described the Cummins Scholarship as having a **catalytic role**, triggering multiple positive changes simultaneously reducing stress, increasing confidence, improving focus, and strengthening motivation. These interconnected effects collectively contributed to improved self-efficacy. Students also acknowledged that family encouragement and personal motivation also played a complementary role.

At the household level, students emphasized that the scholarship significantly reduced the financial burden on their families. This reduction in dependency on relatives or loans fostered a sense of **independence and autonomy**.

Qualitative insights from FGDs also underscored how **reduced financial pressure enabled students to pursue additional coaching and skill-building opportunities, enhancing overall academic performance**. Many noted that the scholarship **instilled a renewed sense of purpose and confidence**, encouraging them to set higher goals and strive for achievement. One student reflected that their decision-making and motivation had improved, giving them the belief that they could accomplish meaningful outcomes in life.

Several students highlighted that the **scholarship's performance criteria** served as an additional motivator, prompting them to work consistently and maintain academic standards. Before receiving the scholarship, some students described feeling demotivated due to financial burdens, which often limited focus and engagement. The scholarship not only alleviated these pressures but also reinforced disciplined study habits, enabling students to dedicate more time and effort toward learning, examinations, and skill development.

The Training and Placement Officer also highlighted that students selected for the Cummins Scholarship typically have strong academic potential and dedication. **However, the scholarship acts as a catalyst, enhancing confidence and motivation, partly because students feel validated by the rigorous selection process.** Access to resources such as laptops helps students stay updated with industry trends, practice technical skills, and prepare for assessments. Soft skills modules and mentorship sessions further support career planning, interview preparation, and overall personality development.

Fee Verification & Reimbursement Process

Overall, students reported a high level of ease with the NB claim process. **Nearly 89% (N=221, n=196) of respondents rated the process as 'Somewhat Easy' or 'Very Easy', with 63.8% (N=221, n=141) describing it as 'Very Easy', indicating that the system is largely understood by most beneficiaries**. This reflects an improvement from the earlier Impact Assessment, where many students reported challenges in understanding the reimbursement process, including confusion about terminology, documentation requirements, and procedural steps. Current findings indicate that the system is now largely clear and easy to navigate for most

beneficiaries. Only a small proportion perceived the process as difficult (4.5%, N=221, n=10), while 6.8% (N=221, n=15) expressed neutrality.

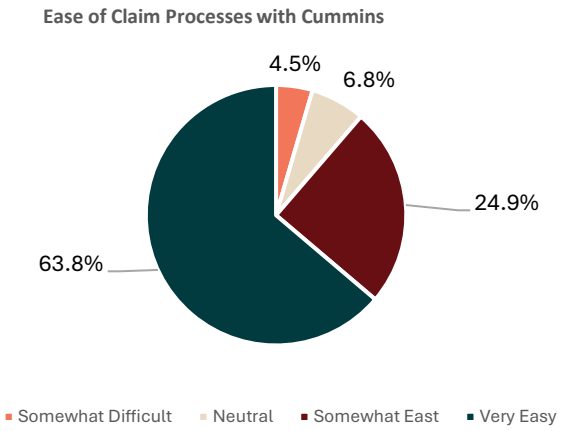


Figure 34: Ease of claim processes with Cummins

However, a closer look at the remaining responses highlights specific challenges affecting some students.

- The most frequently cited challenge was **distance to Cummins facilities and difficulty in travelling (17%, N = 221, n = 37)**.
- Other challenges included **unclear processes (4%, n=9)**, **delays in reimbursement (2%, n = 4)**, **lengthy procedures (2%, n= 4)**, d**ocument submission timelines (2%, n = 4) and 3% students reported other reasons (3%, n = 6)**.
- For students who reported others, many faced delays, with reimbursements sometimes taking 2-3 months. Students living far from the office had to spend an entire day processing claims, and repetitive steps, along with the need to print and send letters each semester or year, made the process cumbersome.
- Errors during documentation often required refilling forms, and technical glitches sometimes slowed down data entry.
- Additionally, reliance on other scholarships caused delays since Cummins only supports laptops and mentorship. Proactive involvement from college staff was noted as a potential improvement to streamline the process.

As shared by employee volunteers, the scholarship claim process, though well-structured and robust, presents several challenges that affect both efficiency and the overall student experience.

- Students are required to physically submit multiple documents which often necessitate travel to distant campuses with limited connectivity. This process is time-consuming.
- To address these challenges, volunteers suggested implementing digital submission mechanisms, enabling real-time status tracking, and providing clearer guidance on document requirements.
- Additionally, the approval workflow involves multiple trustee signoffs and batch (10-15 students together) processing, which further extends processing times.
- Some volunteers observed that students lack understanding of documentation requirements.
- Moreover, expanding engagement beyond top-tier colleges through additional touchpoints could enhance accessibility and create a more student-friendly experience.

Collectively, these measures have the potential to streamline operations, reduce delays, and improve transparency, ultimately making the process more efficient and supportive for students.

Managing Finances in case of no scholarship

Students were also asked how they would have managed their finances in the absence of the Nurturing Brilliance Scholarship Program (N = 221).

- The most common approach was borrowing from banks, SHGs, or money lenders (n=148; 67%), followed by borrowing from friends or relatives (n=90; 41%).
- Family savings also played a significant role (n=67; 30%), while some students took up part-time jobs (n=54; 24%) or sought government scholarships and support (n=44; 20%).
- A smaller proportion reported reducing household expenditures (n=24; 11%), selling family assets (n=18; 8%), seeking concessions from colleges (n=6; 3%), delaying education (n=4; 2%), drop out of college (n=57, 26%), changed degree to affordable one (n=7, 3%) or not pursuing further studies (n=2; 1%).

In addition to the listed options, some students indicated other ways (n=11; 5%) they would have managed their finances in the absence of the Nurturing Brilliance Scholarship Program. These included utilizing a parent's term insurance, borrowing from relatives or banks, relying on government loans, or receiving support from parents. A few students mentioned continuing part-time jobs, postponing purchases such as laptops, or receiving help from teachers. Others noted that they would repay relatives after securing a job. Some responses also reflected expectations of additional financial aid from other scholarships. These insights underscore the varied strategies students would adopt to manage educational expenses when scholarship support is limited.

Effectiveness of Laptop Provision on Student Outcomes

Research has highlighted the critical role of home computers in supporting educational outcomes. Personal computers provide students with access to the internet, spreadsheets, and other relevant software, enabling the timely completion of course assignments (Lenhart et al., 2001, 2008 in Farlie R.W., 2012). They also offer autonomy, flexibility, and constant availability- advantages not typically available through school computers (DiMaggio and Hargittai, 2001, in Farlie R.W., 2012). Regular use of educational software further enhances familiarity with digital tools, allowing students to work efficiently and effectively, particularly in fields such as engineering, where computer skills are essential for becoming industry-ready. The following sections explore outcomes associated with the provision of laptops - i.e. (i) enhanced digital literacy and computer proficiency, (ii) flexibility, effectiveness and efficiency in study schedules leading to enhanced academic performance and motivation, and (iii) enhanced employability skills and career readiness support. The third outcome will be covered in the latter half of this chapter.

Outcome #2.1: Enhanced Digital Literacy and Computer Proficiency

Enhancement of Digital skills

When asked to rate improvements in digital skills after access to home computers on a scale of 1 to 5 (where 1 represents the lowest level of comfort and 5 the highest), students reported improvements across all dimensions following the receipt of the Cummins Scholarship laptop**.** The comparison of mean scores before and after the scholarship indicates improvement in digital competencies, reflecting enhanced familiarity, confidence, and practical usage of digital tools.

Table 12: Mean digital skill scores (before & after) scholarship

Students - After, and Before the scholarship.	General			Female			Male		
	Mean After	Mean Before	Improvement	Mean After	Mean Before	Improvement	Mean After	Mean Before	Improvement
Coding on my laptop - using Python	1.89	4.31	2.43	1.9	4.2	2.3	1.9	4.4	2.5
Microsoft Suit of Tools - Word Power point etc.	2.26	4.63	2.37	2.3	4.7	2.4	2.2	4.6	2.4
Gen-AI Tools like Chat-GPT, Perplexity for course or Project Work	2.28	4.47	2.19	2.3	4.5	2.2	2.3	4.5	2.2
Running data analysis on my laptop - using Excel	1.95	3.99	2.04	1.9	3.9	2	2	4.1	2.1
Video-conferencing Services: G-Meets, Zoom, Teams etc.	2.59	4.51	1.92	2.7	4.5	1.9	2.5	4.5	2
Using LinkedIn for Professional Networking and Job Search Purposes	2.32	4.19	1.87	2.3	4.2	1.9	2.3	4.2	1.8
Online Cloud Services - including Drop Box, Google Drive, One-Drive	2.61	4.35	1.75	2.6	4.5	1.9	2.6	4.2	1.6
Sending and Receiving Emails using G-mail	2.74	4.41	1.67	2.8	4.4	1.6	2.7	4.4	1.7
Advanced software - including AutoCAD	1.5	3.12	1.61	1.5	3.1	1.6	1.5	3.1	1.6
Look for New Information using Google.	3.01	4.61	1.6	3.1	4.6	1.6	2.9	4.6	1.6

Students reported improvement in **foundational digital skills**. Mean self-reported comfort levels for email usage increased from **2.74 to 4.41** (an improvement of **+1.67**), while comfort with cloud-based tools such as Google Drive and OneDrive rose from **2.61 to 4.35** (**+1.75**). Similarly, self-reported comfort with video-conferencing platforms (e.g., Google Meet, Zoom, Microsoft Teams) increased from **2.59 to 4.51** (**+1.92**). Additionally looking for new information using google, mean comfort levels increased from **3.01 to 4.61 (+1.60).** Improvements were also reported in **academic and productivity-related software**. Students reported a sharp increase in comfort using Microsoft Office tools (Word, PowerPoint, etc.), with mean scores rising from **2.26 to 4.63** (**+2.37**). Self-reported ability to conduct data analysis using tools such as Excel also improved significantly, increasing from **1.95 to 3.99** (**+2.04**). Improvements were observed in **advanced and future-oriented digital skills**. Students reported increased comfort with coding languages such as Python, C++, and Java, with mean scores rising from **1.89 to 4.31** (**+2.43**). Similarly, self-reported comfort with using Gen-AI tools such as ChatGPT and Perplexity[27] increased from **2.28 to 4.47** (**+2.19**). Additionally, students reported improved confidence in **professional digital engagement**, with comfort using LinkedIn for networking and job-search purposes increasing from **2.32 to 4.19** (**+1.87**).

[27] This is partially linked to the recent proliferation of technologies associated with Gen AI.

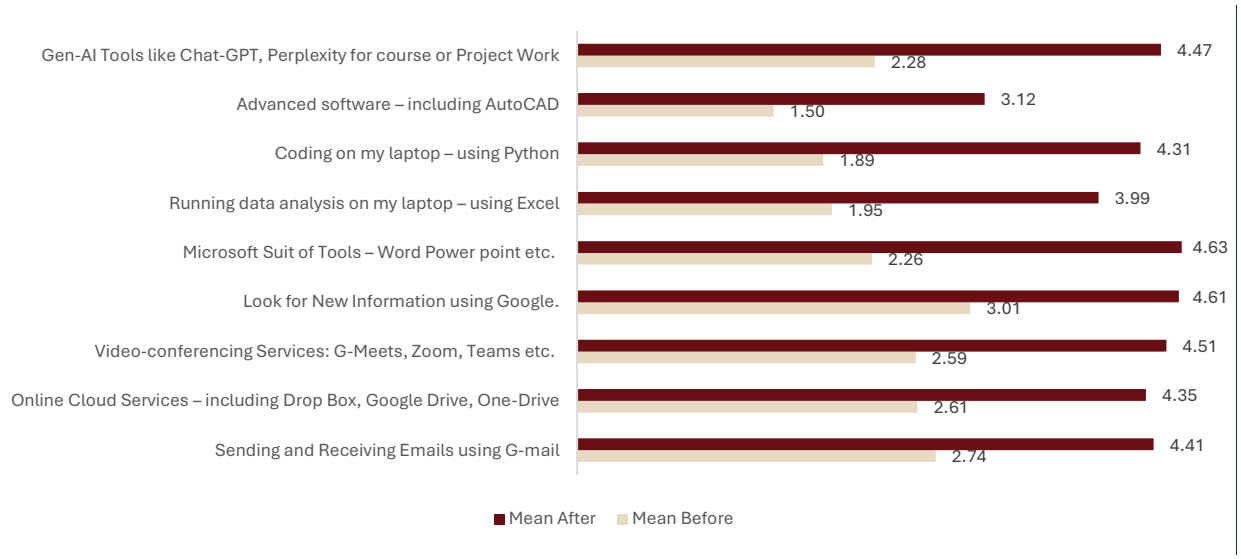


Figure 35:Distribution of Mean Before and After scores against contribution of scholarship toward digital skill outcomes

Overall, the gender-disaggregated findings demonstrate that the Cummins Scholarship laptop intervention contributed to largely equitable digital skill development outcomes. No gender disaggregated differences were observed in mean scores across males & females - baseline levels of skilling were also largely similar.

CONTRIBUTION PATHWAYS FOR DIGITAL UPSKILLING: While several students were familiar with computing skills through access to college computers, and mobile phones; however - the access to a personal laptop significantly impacted digital skill acquisition, limiting experimentation. This impact was especially pronounced against **digital skill development owners**, particularly for first-time laptop owners. The provision of a personal laptop removed affordability and feasibility barriers, enabling continuous and independent access to technology.

1. A key shift observed was from **restricted, dependent learning to hands-on, self-paced practice**. With personal laptops, students could learn software, coding languages, and digital tools at their own pace without depending on college labs, friends, or fixed lab schedules. This autonomy substantially increased practice time and depth of engagement, which students felt would not have been possible without the laptop.

2. Students also highlighted the **limitations of mobile phones** as a major constraint in the absence of a laptop. Mobile devices were described as inadequate for coding, compiling programs, multitasking, and using advanced or academic software. Tools such as Microsoft Office, AutoCAD, MATLAB, SolidWorks, and even effective documentation and presentation work were perceived as impractical or inaccessible on mobile phones, reinforcing the laptop's critical role.

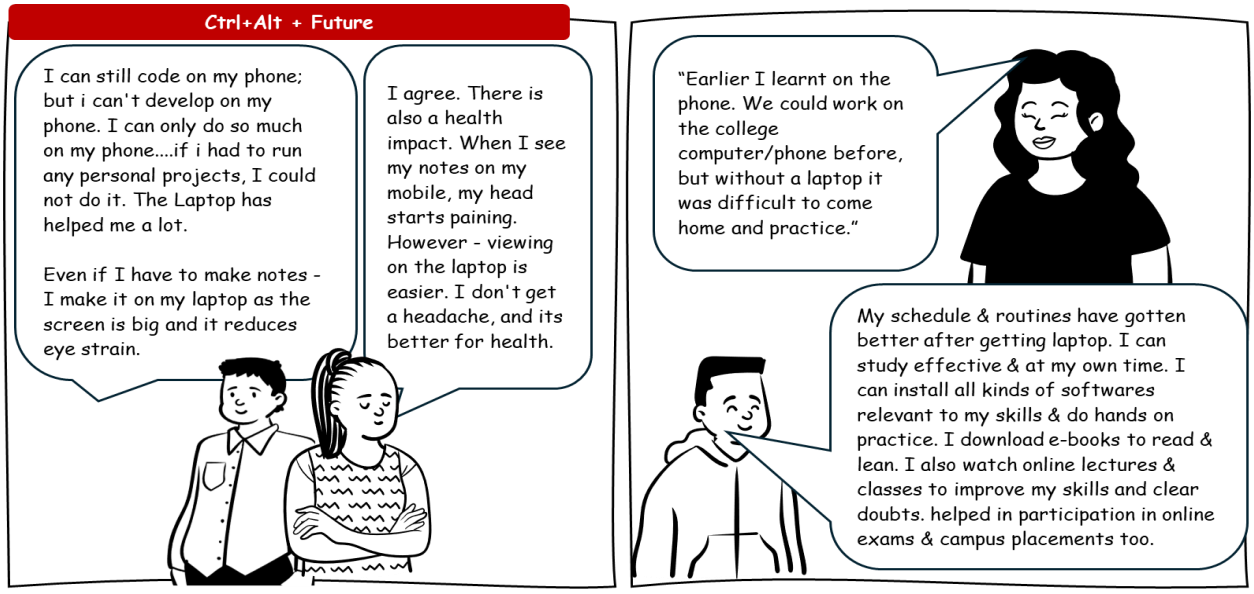
3. The laptop enabled an **expansion of digital skill domains**, spanning foundational digital skills, productivity tools, advanced technical competencies, and employability-related skills. Students linked laptop access directly to improved coding abilities, use of office and cloud-based tools, participation in online learning platforms, and preparation for placements through CV building, applications, and interviews. Exposure to emerging tools, including AI-based[28] applications for coursework and research, was also frequently cited.

[28] The extent of development of AI related skills must be treated with caution – given, that AI is an emerging technology, and access & use of AI was not wide-spread as an emerging technology.

4. In terms of learning behaviour, the laptop increased **flexibility, productivity, and time-on-task**. Students reported being able to practice during evenings, weekends, and leisure time- freedom that would not exist without personal device ownership.

5. The laptop had strong **motivational and confidence effects**. Students reported increased confidence in using technology, greater motivation to learn and upskill, and broader exposure to academic and career opportunities.

Alternate Contribution Pathways: While the laptop was central, students acknowledged the **supportive role of the learning ecosystem**. Curriculum requirements, faculty guidance, and peer learning reinforced digital skill acquisition. Some variation was observed based on **prior access to technology**. Students who already owned laptops reported relatively smaller improvements, though many still benefited from the better performance, speed, and usability of the Cummins-provided device.



Outcome #2.2 & 2.3: Enhanced Flexibility, Effectiveness, and Efficiency of Study Time, Academic Achievement & Performance

Laptop Utility as Academic Orientation

Of the 218 students who received laptops, usage data was reported by 216 respondents, as two students indicated that they already had access to a laptop through their household or educational institution. The analysis is therefore based on the usage patterns reported by these 216 students.

- On average, respondents reported **33.9 hours per week** of academic laptop usage, encompassing activities such as attending online classes, completing assignments, conducting research, and exam preparation.
- In contrast, **non-academic usage averaged 6.62 hours per week** across all respondents. Notably, **19% of students reported not using the laptop for non-academic purposes at all**.
- Further assessment of academic usage patterns shows that over half of the respondents (**52.0%; N=221, n = 115**) used the laptop for **20 to 40 hours per week** for academic purposes, **18.6% (n = 41)** using the laptop for **40 to 60 hours per week** and **5.0% (n = 11)** reporting intensive use of **more than 60 hours per week**. About **22.2% of respondents (n = 49)** reported lower academic usage of **0 to 20**

hours per week, while **2.3% (n = 5)** indicated that they had not received or used the laptop at the time of the survey.

- In terms of non-academic usage, the majority of students (**80.5%; N=221, n = 178**) reported spending **0 to 10 hours per week** on activities such as gaming, social networking, or OTT platforms. An additional **14.9% (n = 33)** reported **10 to 20 hours per week** of non-academic use, while only **2.3% (n = 5)** reported usage of **20 to 30 hours per week**. As with academic usage, **2.3% of respondents (n = 5)** reported not having received or using the laptop.

While research literature has signaled to negative and displacement impacts of non-academic usage of laptops; however, in the context of the NB Scholarship - this does not pose a significant risk. Overall, the average usage pattern indicates a strong academic orientation, with students spending approximately **12 hours on academic activities for every 1 hour spent on non-academic** use of the laptop.

A key positive development observed in the present Impact Assessment is the programme's responsiveness to recommendations from the previous IA study. **The earlier Assessment highlighted a clear need for laptops among diploma students. In response to this identified need, the present assessment indicates that laptop support has since been extended to both engineering and diploma students, reflecting a positive course correction informed by earlier findings.** While laptop support was earlier concentrated primarily on engineering students, the present programme design reflects a more inclusive approach, addressing the digital learning needs of diploma students as well.

Flexibility, Effectiveness & Efficiency of Study Time

Scientific literature has proved that access to home computers has been linked to flexibility in study routines. When asked about the ways in which the provision of a laptop benefited them, as highlighted above, students reported a wide range of academic, skill-related, and confidence-enhancing outcomes.

- However, nearly 9 in 10 students reported **greater flexibility in studies and the ability to complete home assignments** (**n = 193, 87% of N = 221**), highlighting the role of personal laptops in enabling uninterrupted and self-directed learning beyond institutional settings.
- A substantial proportion of students also indicated that laptop access supported their **enrolment in additional courses and the acquisition of new technological skills, including coding** (**n = 174, 79%**), reflecting enhanced engagement with digital learning platforms and future-ready competencies.
- In addition, **63% of students (n = 140)** reported that laptops facilitated access to and completion of degree courseware
- **59% (n = 131)** noted improvements in digital skills and overall computer proficiency.
- Beyond academic and technical benefits, the provision of laptops also **contributed to increased confidence**, with 33% of respondents (n = 72) reporting greater ease and confidence in using laptops in classroom and peer interactions.
- Further, 37% (n = 82) **utilised their laptops for professional networking platforms** such as LinkedIn, indicating early integration into professional digital ecosystems.
- Cost-related benefits were also observed, as 39% of students (n = 86) **reported savings through online access to study materials, reducing reliance on printed resources.** Students also highlighted other benefits, with 39% (n = 87) reporting use of laptops for entertainment and stress relief, suggesting a role in supporting overall well-being alongside academic demands.

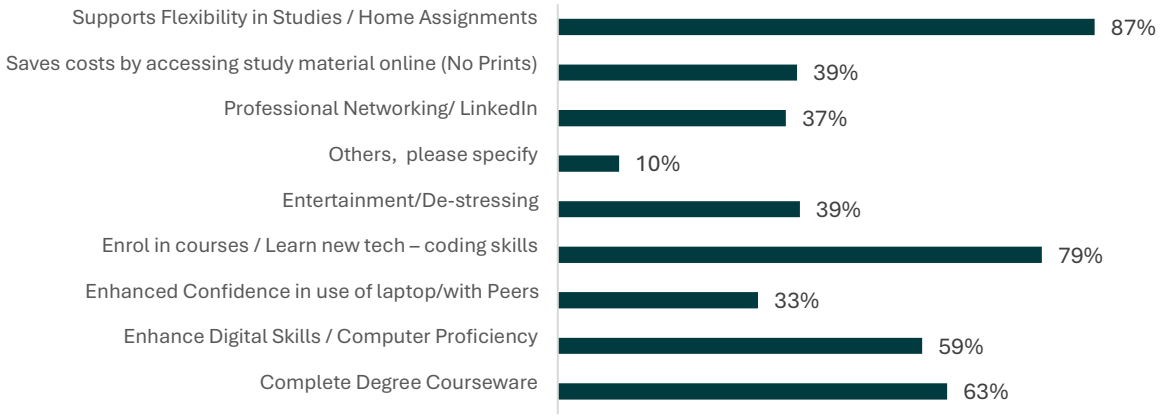


Figure 36: Distribution of responses against utilization of laptop by students

Qualitative insights from FGDs underscore that receiving a laptop through the Cummins Scholarship enabled practical, hands-on learning that was previously limited to theoretical reading. One student shared,

> *"Technical skills have definitely improved-for instance practicing coding. Earlier we had only theoretical reading; now, with the laptop, the practical aspect has increased. It's also useful for us to participate in extracurriculars like hackathons."*

Students emphasized that the laptop expanded access to online resources, tutorials, and learning platforms, supporting both coursework and exam preparation. As one participant noted,

> *"Before I did not have a technical background. I had a PC at home which was very old. At our university, we had lab time only until 4 or 5. Regularly practicing on my laptop has really helped me become tech-savvy and practice efficiently." Another added, "Even for my semester exams, I needed a lot of support from YouTube and the internet. The laptop really reduced my eye strain and made studying much easier."*

For students without prior technical exposure, the laptop was described as transformative. One student reflected,

> *"When I enrolled in the course, I did not know how I would continue my education journey. I had no exposure to coding before. Now I am able to spend a lot of time coding and improving my skills."*

Even students who already had access to some computing devices found the scholarship laptop provided dedicated support for academic tasks:

> *"Earlier I learnt on the phone. We could work on the college computer/phone before, but without a laptop it was difficult to come home and practice."*

Impact of Laptops on Study Schedules & Effectiveness

When asked how their study schedules were likely to be impacted in the absence of a laptop, nearly half of the respondents (**n = 104, 47% of N = 221**) indicated that they would need to **increase their study hours** to manage academic requirements without a personal laptop. Conversely, a substantial proportion of students (**n = 95, 43%**) reported that their **study hours would reduce**. Only a small minority (**n = 22, 10.0%**) indicated that their study hours would remain unchanged.

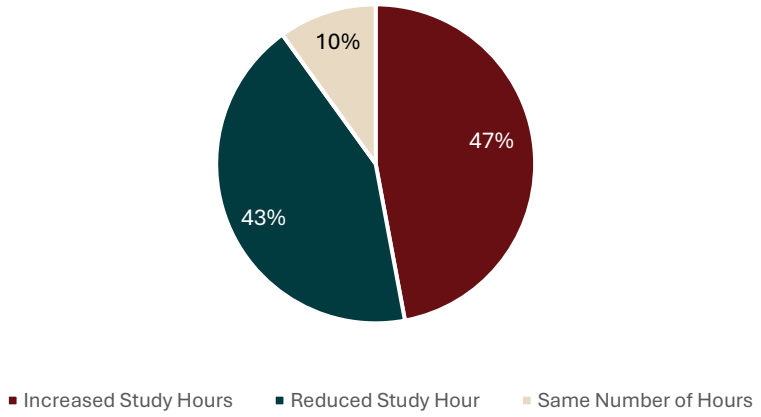


Figure 37: Distribution of responses against impact of laptop on study hours

Both reduction and increase in study hours signal a positive shift towards study effectiveness and efficiency. While those who perceived a reduction - represented a section of students who felt their study time had become more effective & concentrated. Those with increased study time, represented students could uptake additional learning, or practice skills hands-on. Based on responses received, key themes were identified explaining why study hours have changed:

- **Flexible Study Schedules:** Students can learn anytime and from any location, eliminating constraints imposed by library or lab schedules. This flexibility positively influences study routines and planning.

- **Improved Efficiency and Time Management:** Instant access to digital materials and faster task completion reduces time spent on procuring books or preparing assignments, leading to more productive use of time.

- **Enhanced Practical Learning:** Laptops enable hands-on experiences such as coding, programming, and software-based coursework capabilities that mobile devices cannot effectively support.

- **Expanded Access to Resources:** Online lectures and digital content broaden learning opportunities and increase student engagement.

- **Greater Independence:** By reducing reliance on shared devices, students can study independently and maintain continuity in their routines.

- **Support for Academic and Career Preparation:** They play a crucial role in preparing for exams, projects, internships, and aptitude tests, strengthening both academic and professional readiness.

Outcomes #4.1, 4.2, and 4.3: Mentorship Support: Improved Employability Skills, Career Readiness, Career Motivation, Self-Efficacy, and Decision-Making, Enhanced Interpersonal Skills and Support Systems

The Cummins India Nurturing Brilliance Scholarship also enrolls students in a mentorship program, pairing them with senior leaders from Cummins- who volunteer to handhold students in a yearlong engagement. Global Evidence from meta-analyses of mentorship programmes suggests that such engagements generate multidimensional benefits for students. These outcomes broadly fall into four categories: (a) **Attitudinal Outcomes**- fostering a sense of belonging, academic satisfaction, and confidence in chosen fields, (b) **Behavioural outcomes-** improving persistence and retention in academic programs;, (c) **career outcomes-** enhancing career prospects, including access to internships, graduate school admissions, and job opportunities, and (d) **health outcomes-** strengthening psychological wellbeing, reducing stress, and improving self-efficacy[29].

In addition to these, research also points to **networking benefits**, where mentorship expands students' professional connections and access to industry insights, and **skill development outcomes**, such as improved communication and problem-solving abilities. These dimensions collectively underscore the value of mentorship as a complement to financial support, enabling holistic student development and smoother transitions into the workforce.

The following section presents findings from the student survey to assess the extent to which the mentorship component of the Cummins Scholarship has contributed to impacts on informed career Career Motivation & Career Self-efficacy among Mentees.

[29] Assessment and Evaluation: What Can Be Measured in Mentorship, and How? - The Science of Effective Mentorship in STEMM - NCBI Bookshelf

4.1 Assigning mentors to students

As part of the Nurturing Brilliance Program, mentorship was designed as a key support mechanism to guide scholars through their academic and professional journeys. Students were therefore asked whether they were allocated a mentor upon joining the program. The findings indicate that majority of respondents **(95%, n = 211 out of 221)** reported that they were allocated a mentor at the time of joining the program. Only a small proportion of students **(5%, n = 10)** indicated that they were not assigned a mentor.

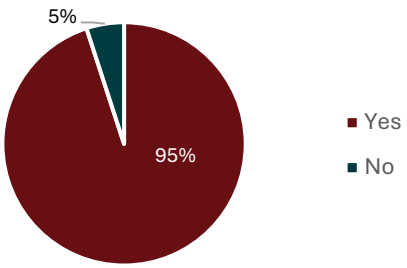


Figure 38: Allocation of mentors at the time of joining the program

4.2 Duration of Mentor-Mentee Interaction

Students were asked to report the duration for which they had been interacting with their assigned mentor. Approximately 29% of respondents (N=152, n = 45) reported interacting with their mentor for 1 to 5 months, while 26% (n = 39) indicated a duration of 6 to 10 months.

Longer-term mentorship engagement was reported by 18% of students (n = 27) who had been interacting with mentors for 11 to 15 months, and 11% each (n = 17) for durations of 16 to 20 months and 21 to 25 months. Only a small proportion of respondents reported extended mentorship relationships, with 3% (n = 4) engaging for 26 to 30 months and 2% (n = 3) reporting interactions lasting over 30 months.

Students were also asked to report the total number of meetings they had with their mentor during the mentorship period. Over half of the respondents (**53.9%; N=152, n = 82**) reported having **1 to 5 meetings** with their mentor. A further **18.4% (n = 28)** indicated **6 to 10 meetings**. **12.5% of students (n = 19)** reported having **11 to 15 meetings**, while smaller proportions reported higher levels of interaction, including **3.3% (n = 5)** with **16 to 20 meetings** and **7.9% (n = 12)** with **21 to 25 meetings**. Only a very small proportion reported intensive mentorship engagement, with **0.7% (n = 1)** indicating **26 to 30 meetings** and **3.3% (n = 5)** reporting **more than 30 meetings**.

To understand the depth of engagement, the analysis compared the number of mentors-mentee meetings with the duration of interaction (in months). This ratio helps assess whether longer mentorship periods translated into more frequent interactions.

4.3 Frequency of mentor-mentee sessions

To understand the intensity and regularity of mentor engagement under the Nurturing Brilliance Program, students were asked how often they met or interacted with their assigned mentors. The responses suggest that a majority of scholars experienced some level of ongoing mentor engagement, though the frequency varied considerably.

59 students (26.7%) reported receiving inactive mentor support, indicating that while a mentor was assigned, the engagement was limited or infrequent. Additionally, 10 students (4.5%) reported receiving no mentorship support at all.

Among the remaining 152 respondents who received active mentorship, monthly interactions were the most common, reported by **41.4%** of respondents **(N=152, n = 63)**, indicating a structured but manageable cadence of support. This was followed by bi-monthly meetings, reported by **18 (n = 28)**, and quarterly interactions

reported by **14% (n = 21)**. A smaller proportion of students reported more frequent engagement, with **12% (n = 18)** meeting their mentors fortnightly and **2% (n = 3)** interacting on a weekly basis.

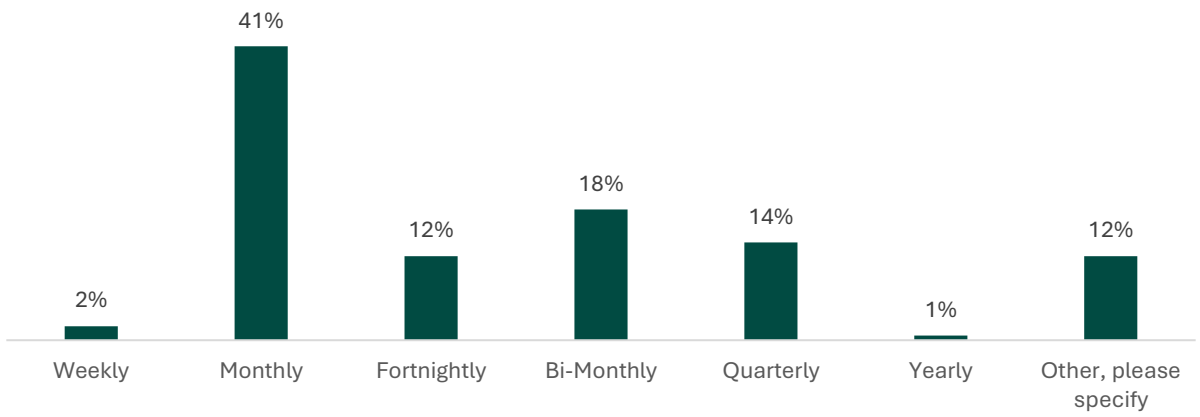


Figure 39: Frequency of mentorship support offered to the students under program

4.4 Quality of mentoring relationships

To assess the quality and depth of mentoring relationships under the Nurturing Brilliance Program, scholars who reported active mentorship (N = 152) were asked to rate a series of statements on a 5-point scale, ranging from Strongly Disagree (1) to Strongly Agree (5).

The findings indicate that mentoring relationships were largely positive and supportive in nature and thus has an opportunity to effective mentoring outcomes. Students reported:

- High levels of trust with their mentors (mean = 4.07)
- Found them easy to talk to (mean = 4.3), suggesting strong rapport and approachability.
- Mentors were also perceived as respectful of students' feelings (mean = 4.15)
- Percieved to be genuinely interested in student future careers (mean = 3.9), reflecting an empathetic and career-oriented mentoring approach.
- Additionally, mentors were seen as making efforts to understand students' perspectives before offering guidance (mean = 3.8).
- However, relatively moderate scores were observed for sharing personal problems (mean = 3.3), receiving advice on personal issues (mean = 3.34), interacting with mentors like a friend (mean = 3.69) and mentors introducing students to their professional networks (mean = 2.8).

Moderate scores are representative of the fact that several **students did not approach mentor for personal problems - associating with them, only with professional purposes. Moreover, several mentors did not necessarily belong to similar technical domains as students -** thus limiting the amount of support extended towards networking opportunities.

Figure 40: Assessment of mentor-mentee relationship

To understand the outcomes of mentoring under the Scholarship Program, students were asked to reflect on changes they observed in themselves as a result of their mentoring experience.

Using a 5-point scale (where higher scores indicate stronger agreement), respondents rated their perceptions before and after mentoring across a range of personal, academic, and career-related dimensions. This before-after comparison enables an assessment of the contribution of mentoring to students' holistic development, including career readiness, self-belief, interpersonal skills, and emotional wellbeing.

Table 13: Mean value of mentorship gains

General					Male				Female		
Students - After, and Before the scholarship	**Mean After**	**Mean Before**	**Improvement**	**P-Value**	**Effect Size**	**Mean After**	**Mean Before**	**Improvement**	**Mean After**	**Mean Before**	**Improvement**
Importance of Goal Settings	3.99	2.45	1.55	P<0.01	1.42	3.98	2.35	1.63	4.01	2.57	1.44
Clarity of Career Goals	4.04	2.43	1.61	*P<0.01*	1.41	4.01	2.37	1.64	4.08	2.51	1.57
Career Motivation	4.07	2.55	1.52	*P<0.01*	1.38	4.12	2.48	1.64	4.00	2.64	1.36
Pathways to Achieve Career Goals	4.03	2.33	1.70	*P<0.01*	1.54	4.04	2.27	1.78	4.01	2.40	1.61
Deepened Interpersonal Relationship with others	3.58	2.26	1.32	*P<0.01*	1.36	3.62	2.28	1.34	3.53	2.24	1.29
Enhanced Confidence & Self-Belief	4.13	2.53	1.60	*P<0.01*	1.37	4.10	2.40	1.69	4.18	2.69	1.49
Emotional Wellbeing / Reduced Stress & Anxiety	3.54	2.28	1.27	*P<0.01*	1.27	3.41	2.16	1.26	3.71	2.43	1.28

The findings **indicate a positive shift across all outcome areas following mentoring**:

- Overall, the importance of goal setting increased markedly, with mean scores rising from 2.45 (before) to 3.99 (after) (improvement = 1.55).
- Similarly, clarity of career goals improved from a mean of 2.43 to 4.04 (improvement = 1.61), highlighting enhanced career focus and direction.
- Career motivation also showed improvement, increasing from 2.55 to 4.07 (improvement = 1.52).
- Understanding of pathways to achieve career goals also recorded improvements, rising from 2.33 to 4.03 (improvement = 1.70), indicating strengthened planning and preparedness for future careers.

Mentoring also contributed **substantially to students' personal development**.

- Confidence and self-belief increased from a mean score of 2.53 before mentoring to 4.13 after mentoring (improvement = 1.60), reflecting enhanced self-efficacy.
- In addition, students reported improvements in interpersonal relationships, with mean scores rising from 2.26 to 3.58 (improvement = 1.32), and in emotional wellbeing, including reduced stress and anxiety, which improved from 2.28 to 3.54 (improvement = 1.27).

All areas showed statistically significant improvements, with large to very large effect sizes ranging from 1.27 to 1.54. A gender-wise analysis shows that improvements were largely consistent across female and male students. Female students demonstrated slightly higher gains in goal setting (improvement = 1.63), clarity of career goals (1.64), career motivation (1.64), pathways to achieve career goals (1.78), confidence and self-belief (1.69) and Deepened Interpersonal Relationship with others (1.34). Male students, while showing comparable overall improvements, reported marginally higher post-mentoring emotional wellbeing scores (mean after = 3.7).

CONTRIBUTION PATHWAYS: Respondents were asked why they felt the Cummins Nurturing Brilliance Scholarship contributed to their outcomes, and whether any other factors also played a role. Many respondents highlighted the critical role of mentorship in complementing the scholarship's benefits. Other students indicated that mentors helped clarify career goals and pathways. Mentorship also enhanced confidence as reported by some respondents, with students reporting that mentor interactions, sometimes their first professional conversations, boosted self-belief.

As per responses shared by students, mentors additionally **provided practical guidance on employability skills,** such as interviews, internships, and hackathons. **Structured goal setting and planning exercises and soft skills development**, including **communication and English proficiency** further supported students' professional growth. Emotional support was another important pathway with students appreciating mentors' willingness to provide guidance during stressful situation.

However, mentorship experiences were not uniform. Some students reported limited or no mentor interaction, confusion about mentor roles, or mentor availability issues, limiting the impact for some. Given below, is a word cloud of the responses from students, on how mentorship experiences supported students.

Figure 41: Word cloud of benefits recieved from Mentorship support

"My mentor gave me a clear picture on how I should look towards my future goals."

"I was mentally free to focus on my career path as the financial stress reduced."

"She guided me throughout my interview preparation. "

"Scholarship gave me motivation & confidence... mentorship helped in clarity."

ALTERNATE CONTRIBUTION PATHWAYS: Beyond the scholarship and mentorship, other influences shaped outcomes. Family, faculty, and peers reinforced learning and motivation. Intrinsic self-motivation also played a critical role, while institutional support from college placement cells and training programs offered additional guidance. While some students credited mentorship as the sole driver of their improvement other respondents flagged weak or unclear attribution, suggesting that outcomes were sometimes influenced by multiple factors or difficult to isolate.

4.5 Mentorship Support and Career Guidance

When asked whether mentor support helped them develop a clear plan of action to achieve their goals, 81% of the respondents (N=152, n = 123) reported that mentorship played a supportive role in clarifying next steps and structuring their approach towards academic and career goals. However, 9% of students (N=221, n = 29) reported that mentor support did not contribute to the development of a clear plan of action.

Students were asked to rate the effectiveness of career guidance provided by their mentors on a five-point scale ranging from Very Ineffective to Very Effective. 49% of respondents (N=152, n = 74) rated the guidance as very effective, with 37% (n = 56) describing it as somewhat Effective. These responses align with earlier qualitative insights where students highlighted mentorship support in career clarity, interview preparation, goal setting, and confidence building. About 2% of respondents (n = 3) rated the guidance as somewhat ineffective, including 6% (n = 9) who perceived it as Very Ineffective. Additionally, 6% (n = 10) reported a neutral experience.

Qualitative insights from students FGDs revealed a mixed experience with the Cummins mentorship program. Many students reported that mentors provided valuable guidance on academic choices, career planning, and preparation for placements and internships. Active mentors helped students analyze their strengths and

weaknesses, guided them in identifying suitable career paths, and provided advice on interview preparation and employability skills. For these students, mentorship reinforced confidence, improved decision-making, and aligned well with their personal and academic goals.

However, several students noted limited or inconsistent engagement with their mentors:

- Some **mentors were unresponsive, while others were unclear about their role or lacked clarity on how to support their mentees effectively**.
- Several students also reported challenges in accessing the mentorship program or lack of clarity, which affected their ability to leverage it fully.
- Time constraints and lack of proactive engagement- both from students and mentors- further limited the program's effectiveness.

Insights from the TPO corroborate student reports and provide additional perspective on the program's impact. While not all TPOs were in a position to comment; however, some were of the opinion that students enrolled under the Cummins Scholarship Program consistently demonstrate higher levels of career readiness and clearer professional direction compared to other students. These students often exhibit stronger technical skills, better communication, greater confidence[30] in interviews and group discussions, and improved self-awareness and professionalism**. Scholarship students tend to have a better understanding of career pathways, suitable job roles within their engineering domains, and industry expectations**. This clarity translates into more structured career planning, early placement, and better preparedness for assessments and interviews.

4.6 Identified Gaps and Areas for Strengthening the Mentorship Programme

Students were asked to identify areas where the mentorship program could be strengthened, drawing on their level of engagement, quality of interaction, and perceived usefulness of mentor support. The most frequently cited concern was the absence of mentor interaction, with students reporting that they were unable to suggest improvements as no engagement had occurred. As one respondent noted, "The student is not in a position to suggest changes as no interaction happened," while another stated, "Scores are indicative. No conversation happened with mentor." Among students who did engage with mentors, a recurring recommendation was the need to increase the frequency of interactions, with calls for more regular conversations to sustain guidance and momentum. Closely related to this was the demand for more structured mentorship, with students emphasizing the importance of fixed schedules, predefined agendas, or monthly themes to ensure continuity and clarity.

Mentor availability and responsiveness also emerged as a critical challenge, with mentors being unreachable, disengaged, or discontinuing interactions mid-way. Linked to this, some students felt that mentors should take a more proactive role in initiating and sustaining engagement, rather than placing the onus on students. Another important theme related to mentor-mentee matching, with 16 students expressing dissatisfaction due to domain mismatch and a preference for mentors from the same academic or professional field.

Students also articulated the need for more career- and industry-specific guidance particularly around internships, technical skills, and current market trends. Soft skills and holistic support were highlighted by students, who sought greater assistance with communication, interview readiness, resume building, and wellbeing. Some raised concerns around communication comfort and trust, pointing to hesitation due to language barriers or gender dynamics.

[30] This may also be influenced by the fact that students undertaking the cummins scholarship are already among the crème-de-la-crème within their peer group – academically, thus increasingly motivated and with high aptitude.

In terms of program governance, students emphasized the need for monitoring, feedback, and accountability mechanisms, suggesting tracking of interactions and oversight to ensure mentor commitment. Additionally, some students described mentorship as impactful but short-lived, limited to one or two meetings or a brief duration. On the other hand, some students reported satisfaction with the program and felt that no changes were required. A small number of respondents felt it was too early to comment or that the question was not applicable.

Qualitative insights from student's FGDs indicate several areas for strengthening the Cummins Scholarship program to maximize impact. Students suggested improving scholarship processes and communication, including timely fund disbursement, clear result notifications, and wider outreach to ensure awareness among first-year students. While most found the laptops adequate, some recommended upgraded specifications to better support technical tasks. Mentorship emerged as a key area for enhancement, with students calling for structured, personalized, and consistent engagement to address academic and career guidance effectively. Greater emphasis on soft skills modules through mandatory participation, coupled with expanded placement and internship support, including alumni networking, was also put forward.

The previous Impact Assessment highlighted mentorship as an area requiring strengthening, with **respondents suggesting offline interactions with mentors**. It noted that mentor engagement was largely voluntary, resulting in irregular and untimely interactions, with limited structure guiding mentor-mentee engagement.

Findings from the present IA indicate that these challenges **continue to persist**. Some students still report **less frequent and limited mentorship interactions**, which are predominantly **virtual in nature**, with no clearly defined structure or regularity. As a result, students continue to face challenges in deriving consistent guidance and timely support from mentors.

These findings suggest the need to **strengthen the structure and regularity of mentorship support**, including greater emphasis on planned interactions and opportunities for in-person engagement, to enhance the effectiveness of mentorship and improve student learning and career outcomes.

Outcome #5 Empowering Students for Career Readiness and Employment

Building on the observed improvements in digital literacy, employability skills, career clarity, and mentorship support, this section assesses how far the Cummins Nurturing Brilliance Scholarship has translated improved employability, career readiness, and mentorship support into tangible employment pathways. This outcome focuses on students' progression into internships, jobs, capturing early career transitions as well as placement preparedness.

Placement status

Students were asked whether they had appeared for college placements or applied for jobs outside their colleges to understand their level of engagement with the labour market. Slightly over half of the respondents (52.5%, N=221, n = 116) reported that they had appeared for placements or applied for jobs, indicating active participation in placement processes. At the same time, a significant proportion of students (41.2%, n = 91) reported that it was too early to sit for placements or that placements had not yet started, although they intended to participate in the future. A small minority of respondents (6.3%, n = 14) indicated that they were not interested in participating in placements or job applications.

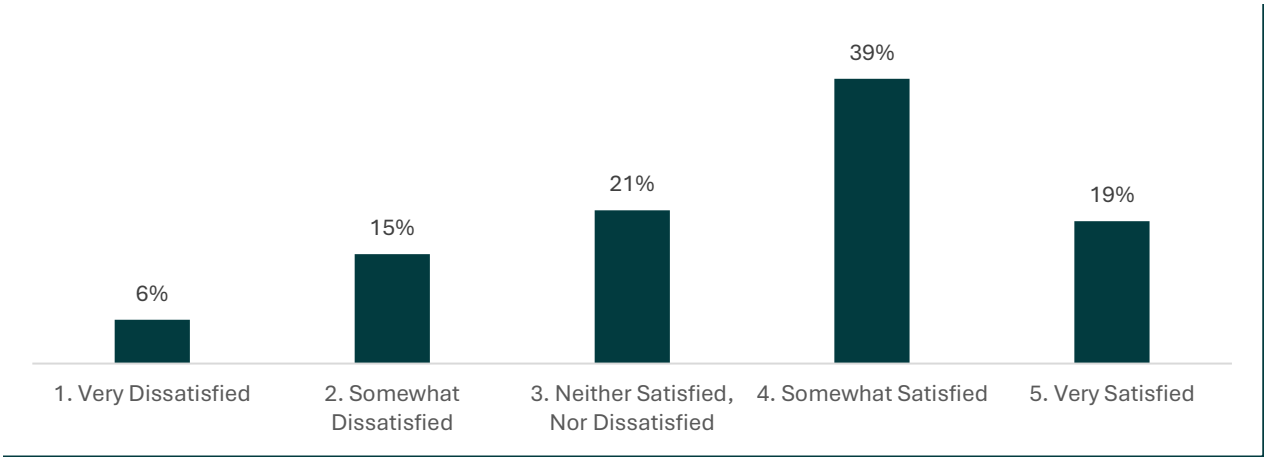


Figure 42: Responses against satisfaction with Job Offers amongst students

Students were also asked to rate their satisfaction with job-offers, as a way to understand if student socio-economic mobility opportunities matched their aspirations. When asked to rate their satisfaction with their job offers on a scale of 1 to 5, with 1 being the lowest and 5 the highest, respondents displayed a range of experiences.

- Out of the total, 6% (n = 4) were very dissatisfied and 15% (n = 10) were somewhat dissatisfied, while 21% (n = 14) reported being neither satisfied nor dissatisfied.
- On the positive side, the largest proportion, 39% (n = 26), were somewhat satisfied, and 19% (n = 13) were very satisfied with the job offer.

These statistics imply scope for improvement in student gaps.

Perceived Contribution of Scholarship Support to Employment Outcomes

Beyond financial assistance for pursuing higher education, the Cummins Nurturing Brilliance Scholarship provides a range of non-financial support aimed at strengthening students' employability and job readiness. To understand how these forms of support contributed to students' ability to apply for and secure employment, respondents were asked to identify the areas in which the scholarship had supported them during their job search and placement process.

The responses highlight several key dimensions of support.

- The most cited area was improvement in **English speaking skills**, with 60% of students (N=116, n = 70) reporting that the scholarship helped them communicate more confidently in professional settings.
- **Career guidance** was also valued, with 53% (n = 61) noting that mentorship and structured advice provided clarity on career goals and potential pathways.
- Similarly, 48% of respondents (n = 56) felt that the scholarship enhanced their **career motivation**, giving them the confidence and determination to pursue employment opportunities actively.
- Other important areas of support included **preparation for interviews**, identified by 42% of respondents (n = 49), & **moral or emotional support**, reported by 41% (n = 47).
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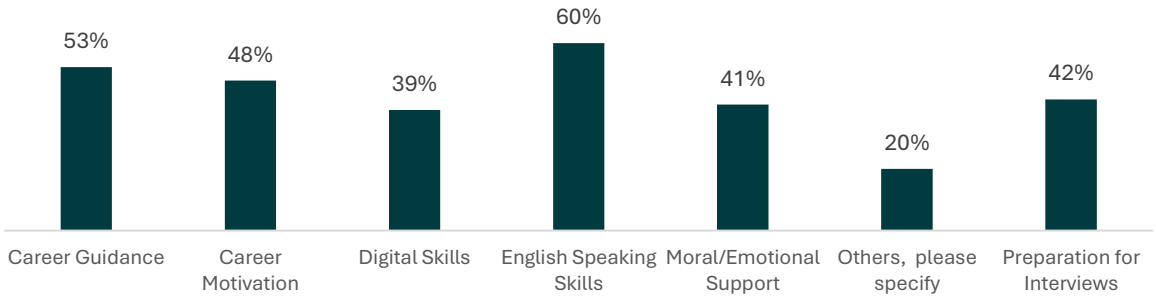


Figure 43: Perceived benefit of scholarship

- **Digital skills development** was highlighted by 39% of students (n = 45), reflecting the scholarship's role in improving students' proficiency with technology, a key requirement in modern workplaces.
- **Improvement in self-confidence and morale** and **support related to networking and interview preparation** were each reported by **17%** (N=23, n=4) of respondents, underscoring the importance of confidence-building and exposure-oriented inputs in enhancing employability.
- Several responses reflected individual circumstances rather than program-related factors. These included students pursuing **higher education** (**4.3%, n=1**), those who had **only recently begun participating in placement processes** (**4.3%, n=1**), students **currently engaged in internships** (**4.3%, n=1**), and respondents citing **personal reasons** (**4.3%, n=1**) affecting their job search.

Although beyond the scope of the mandate, **17%** (N=23, n=4) of respondents indicated that **job-oriented training was not provided**, pointing to perceived gaps in practice-oriented or industry-aligned support. Issues related to the **soft skills modules** were also reported, with **13% (n=3)** noting that the module was not completed and **9%(n=2)** indicating that it was not covered. Additionally, **8.7%** of respondents reported **no interaction with a mentor**, indicating variability in access to mentorship support.

Reasons for Non-Participation in Placement Processes

Of the students who did not apply for placements, majority (71.4%, N=14, n = 10) indicated that they were planning to pursue higher studies. Only one student (7.1%, n = 1) reported an intention to start their own business.

Among the 116 students who reported engaging in placement processes, more than half (56.9%, n = 66) had received a confirmed placement offer, indicating positive employment outcomes for a substantial proportion of participating students. A further 0.9% (n = 1) reported having received a tentative offer. However, 43.1% of students (n = 50) reported that they had not yet received a placement offer.

Annual CTC offered to students

Among students who reported receiving placement offers, respondents were asked to indicate the value of their annual Cost to Company (CTC) in order to assess early signs of socio-economic mobility. The analysis shows an increase in income levels when comparing students' average household **income to their placement offers. The average annual household income of respondents was reported at INR 1,23,107, with a median household income of INR 80,000. In comparison, the average annual placement offer stood at INR 4,92,584,** with a median offer of INR 4,25,000. This marked difference indicates a significant upward shift in earning potential for students who secured placements.

Nature of Roles Secured and Occupational Mobility

Students who reported receiving placement offers were further asked to describe the type of roles they had secured in order to assess patterns of occupational mobility and early career positioning.

Students transitioned into **Software Development and IT roles**, marking entry into knowledge-intensive and digitally skilled occupations. These roles include positions such as Software Engineer, Software Developer, Backend Developer, and mobile application Engineer, and Quality Apprentice reflect formalized entry into engineering careers, with an emphasis on skill development, industry exposure, and progressive responsibility.

Students also secured **Analyst and technical consulting roles**, reflecting entry into analytical, systems-oriented, and client-facing career tracks. Roles such as Analyst, Junior Analyst, Solution Analyst, Software Analyst, and Technical Analyst - Client Support indicate engagement with IT services, consulting environments, and data-driven problem-solving functions that combine technical and communication skills.

Internships and transitional employment arrangements were also reported, including software development and engineering internships, extended internship periods, delayed joining, and roles with offers pending confirmation. These roles represent transitional stages in the movement from education to stable employment, providing practical exposure and pathways toward formal workforce integration.

In addition, students entered **manufacturing, design, and embedded engineering roles**, demonstrating engagement with core engineering disciplines. Positions such as Manufacturing Engineer, Mechanical Design Engineer, Embedded Product Testing Engineer, and design-oriented roles reflect involvement in production environments, systems testing, and applied engineering functions within industrial settings.

Students also transitioned into **operations, field, and infrastructure-related roles**, including transport, field engineering, customer support, and training-focused positions. These roles are linked to service delivery, infrastructure systems, and operational execution.

Finally, roles in **business, finance, and management** highlight movement into managerial and commercial career tracks beyond purely technical pathways. Positions such as Deputy Manager, Junior Manager, Financial Advisor, and Business Development Associate reflect the application of transferable skills in leadership, coordination, and business-oriented functions.

Laptop and Job Readiness

Qualitative insights from student focus group discussions highlight that access to a laptop through the Scholarship significantly enhanced job readiness and placement preparation. Students emphasized that having a personal laptop enabled them to engage in practical exercises, complete online courses, and build critical skills for internships and job interviews.

Beyond technical preparation, laptops also supported soft skills development. Students shared that the scholarship's structured modules, combined with laptop access, improved English fluency, confidence, and presentation skills. As one participant reflected,

> *"Cummins has really supported me with my English and given me an environment with interviews to improve my fluency. Earlier I hesitated to speak in front of people, but now I am comfortable and confident."* Another student noted, *"I have done all the modules and found them really helpful. They take us from basic to advanced, giving a roadmap for improving communication, aptitude, and logical skills."*

Several students reported using laptops to access platforms like Udemy and other resources essential for placement preparation. One student shared,

> *"I recently got placed at Infosys, and the laptop helped me a lot. Buying a laptop is a privilege and getting it from Cummins allowed me to enroll in courses and prepare for placements. The soft skills modules improved my grammar, presentation, and logical aptitude, adding real value to my job readiness."*

Students also highlighted practical benefits, such as attending online meetings, screenings, and tests during placement processes. As one student explained,

> *"A lot of meetings and screenings happen on laptops. With a laptop, it's easy to apply for jobs and give tests directly."*

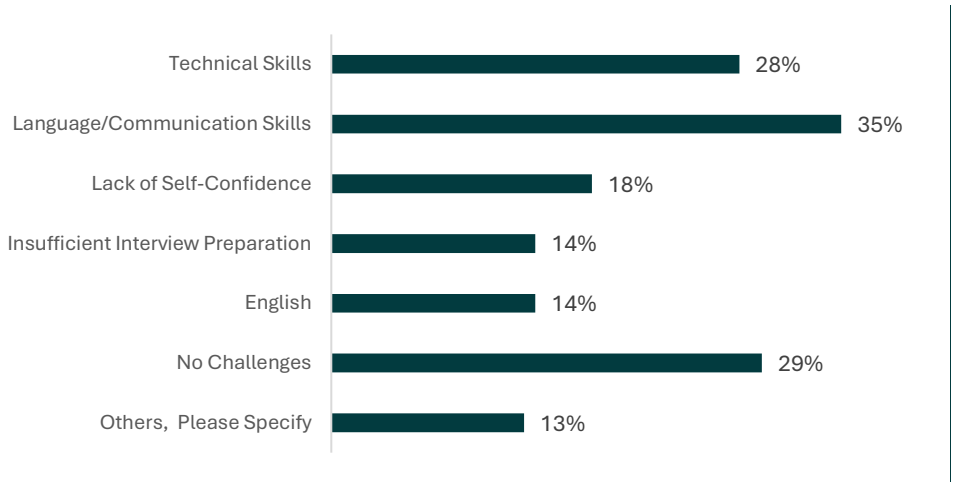
Differences in Placement Engagement: Cummins Scholars vs. Non-Scholars

The TPO observed that Cummins scholars generally display higher preparedness and engagement in the placement process compared to non-scholarship students, although direct comparisons are sometimes limited due to visibility on which students are enrolled. Scholars tend to secure placements earlier and often demonstrate stronger performance in group discussions and interviews, with clearer articulation, confidence, and professionalism. Several factors contribute to this difference: the scholarship selects academically bright and motivated students, the focused mentorship and guidance they receive, and the financial support that reduces stress and allows them to concentrate on skill-building and placement preparation. Collectively, these elements foster greater commitment, discipline, and motivation among Cummins scholars, which may translate into better placement outcomes, including higher-quality job offers in some cases.

Challenges Encountered in Securing Employment

Students were asked to report the challenges they faced while securing a job of their choice, in order to identify barriers encountered during the transition from education to employment.

- 39% (N=116, n=45) of respondents, highlighting **persistent difficulties in articulating skills and performing effectively in interviews** and professional interactions.
- **Technical skills gaps** were identified by 31% (N=116, n=36) of respondents, indicating challenges in meeting job-specific competency requirements.
- In addition, **lack of self-confidence** was cited by 19.8% (N=116, n=23) of students, underscoring the role of psychological and attitudinal factors in influencing job search outcomes.
- **English language proficiency** was reported as a challenge by 16% (N=116, n=18) of students.
- Insufficient interview preparation was reported by 16% (N=116, n=18) of respondents, suggesting the need for more structured and practice-oriented interview support.
- 33% (N=116, n=38) of students reported **facing no challenges**, indicating that existing employability support mechanisms were effective for a segment of the cohort.
- 24% (N=116, n=28) of respondents selected the "Other". These included: **limited job opportunities** in the market emerged as the most frequently cited factor (32%, N=28, n=9), followed by lack of companies participating in placement processes (25%, N=28, n=7), lack of training for interviews (10%, N=28, n=3) and lack of proper mentorship (7%, N=28, n=2), indicating areas where enhanced institutional and program-level support could strengthen employment preparedness



Graph 6: Distribution of responses against challenges faced by students in securing employment

Some respondents cited plans for higher studies (7%, N=28, n=2) and low job satisfaction (7%, N=28, n=2) as influencing their job search decisions, while a small proportion referred to personal issues, preference for a start-up venture, or considerations related to work culture.

The TPO corroborated these findings, noting that some of the **students struggle with English communication and professional presentation,** particularly those from rural or vernacular-medium backgrounds. While students often have strong academic knowledge, gaps in practical experience, and industry-relevant competencies limit placement readiness. Aptitude and exposure to corporate environments were also identified as areas requiring additional support. These observations align closely with the challenges reported by students.

Strengthening Employability Support

Both earlier and current Impact Assessments consistently highlight a significant need for enhanced employability-related support among scholarship recipients. **In the earlier study, around 35% of respondents indicated the need for assistance with college projects, internships, and placement opportunities**. The present assessment reaffirms this requirement, with students and Training and Placement Officers (TPOs) emphasizing the importance of structured, career-oriented support to complement financial assistance.

The persistence of this need across assessment cycles suggests that, while the scholarship effectively reduces financial barriers**, there is an opportunity to amplify its impact by strengthening students' career readiness and facilitating their transition to employment**. Addressing this gap would not only enhance the programme's relevance but also contribute to long-term student success.

As a way forward, Cummins could consider introducing structured career engagement platforms-such as career fests or job fairs in collaboration with other NGOs that bring together students, alumni, industry partners, and recruiters. These initiatives would provide exposure to internships and placement opportunities, addressing a recurring need identified across assessments and reinforcing the scholarship's role in shaping sustainable academic and professional outcomes.

Areas for Strengthening the Scholarship

Students were asked to share their suggestions on how the Cummins Nurturing Brilliance Scholarship could be made more effective. The most commonly recommended changes were **increasing financial aid to**

students and **increasing the frequency of mentorship**, each highlighted by 40% of respondents (N=221, n = 89).

Other suggestions focused on improving the **quality of mentorship** (17%, n = 38) and **enhancing the quality of soft skill modules** (15%, n = 34). 18% of respondents (n = 40) also emphasized the importance of providing **internship or placement opportunities**, which would directly support employability outcomes.

A smaller proportion of students recommended **deepened mentorship support** (7%, n = 15), **making soft skills training mandatory** (6%, n = 13), **enhancing the laptop version provided** (4%, n = 8), and **simplifying re-imbursement processes** (6%, n = 13). Notably, 13% of respondents (n = 29) indicated that **no changes were necessary**.

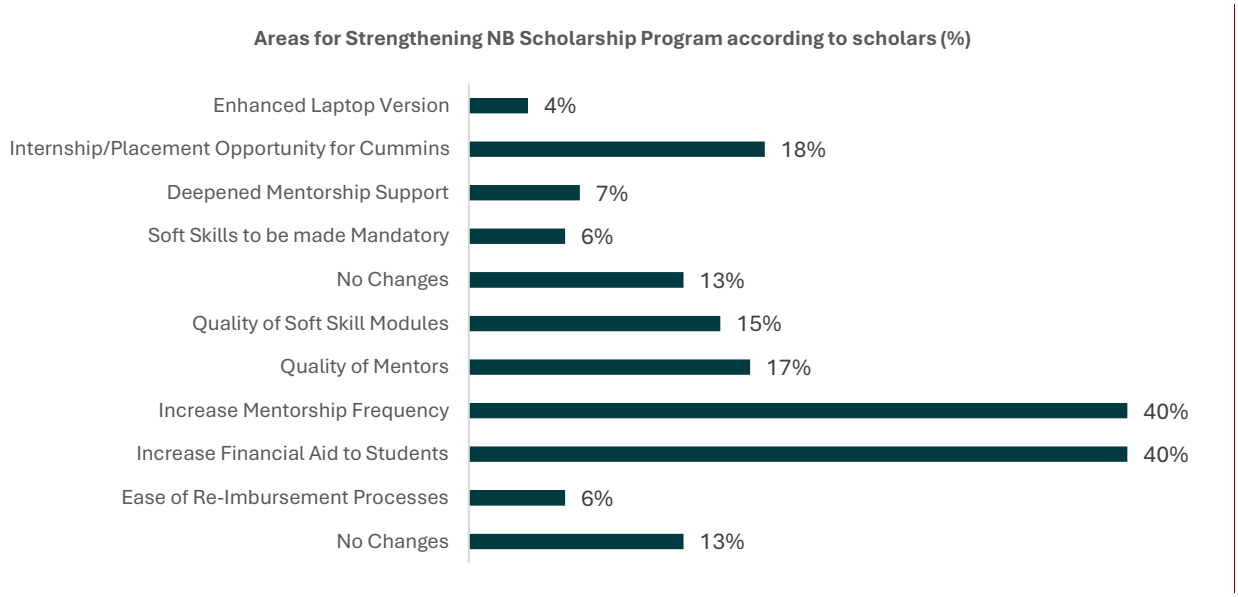


Figure 44: Areas for strengthening NB Scholarship Program

Visit to Cummins Manufacturing Plant: An earlier Impact Assessment identified on-site visits to the nearest Cummins manufacturing plant as a valuable component of the scholarship programme. These visits, however, were temporarily suspended due to the COVID-19 pandemic. **Looking ahead, Cummins could consider reinstating plant visits, as they provide significant experiential learning opportunities and enhance students' career awareness, motivation, and industry readiness**. Reintroducing this component would strengthen students' exposure to real-world corporate environments and further amplify the overall impact of the programme.

Feedback from Training and Placement Officers (TPOs): reflects a strong appreciation of the Cummins Scholarship Program and its positive impact, while also highlighting constructive opportunities to further enhance student outcomes. TPOs suggested that the program could be strengthened by:

1. **Integrating more industry-relevant certification and upskilling opportunities** in high-demand areas such as Python, Cyber Security, JavaScript, BIM, and AutoCAD. Such certifications would complement students' academic learning and further align their skills with evolving industry requirements.

2. **Expanding internship and industry exposure opportunities** - facilitating hands-on experience in real work environments significantly boosts students' confidence, practical skills, and employability. In a competitive job market, particularly in IT and engineering sectors, structured internships and placement-

oriented support could further enhance students' readiness for employment and help them navigate market challenges more effectively.

3. **Stronger communication and coordination with colleges**. TPOs emphasized that timely and structured information sharing regarding program timelines, selection processes, and expectations would help colleges better support students throughout the scholarship journey.

4. Early & structured orientation or awareness sessions, preferably in-person where feasible, to ensure that students, especially those from rural or vernacular backgrounds, clearly understand the program and its benefits.

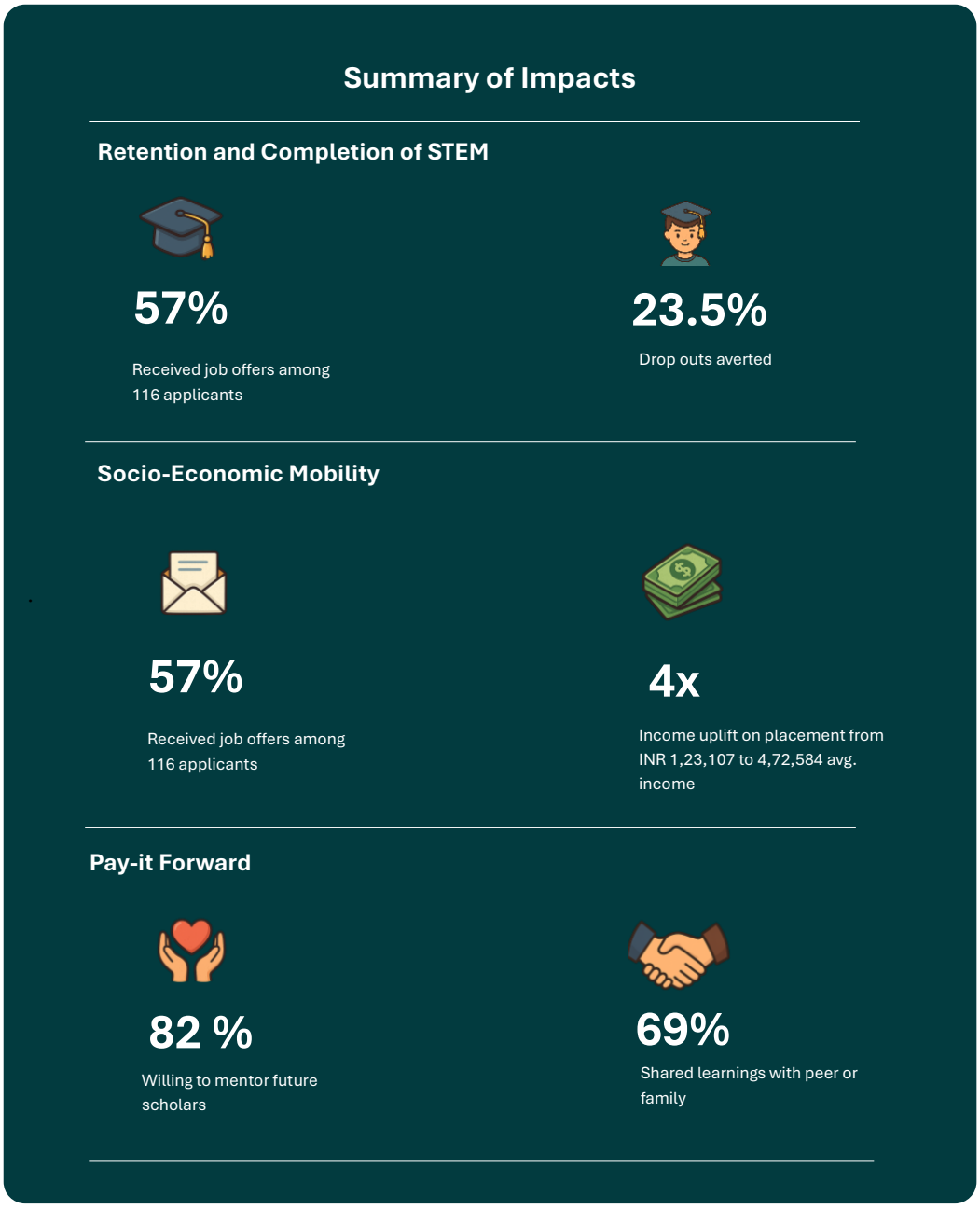
5. Continued emphasis on career readiness and soft skills development, including aptitude, communication, and interview preparation, would further strengthen placement outcomes. Extending awareness of Cummins' initiatives and keeping colleges closely engaged were seen as effective ways to broaden reach, reduce missed opportunities, and amplify the program's overall impact.

Chapter 5: KEQ IV – Programmatic Impact

KEQ IV: What Impacts did the NB Scholarship contribute to program participants - direct, and indirect stakeholders i.e. students, mentors, etc. What are unexpected and emergent outcomes from the program intervention?

The OECD-DAC Criteria - 'Impact', refers to the "extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level effects." These differ from effectiveness as a criterion, as they aim to capture the significant and potentially transformative impacts of an intervention across social, environmental, and economic dimensions.

Based on these criteria - First, for students, the NB Scholarship program forecasts impact at the STEM Ecosystem Level, the socio-economic mobility of students and families that impact the lives of students, and the STEM ecosystem directly. Second, from a volunteer perspective, the NB scholarship seeks to create meaningful life opportunities to foster greater employee well-being vis-à-vis professional growth and life-satisfaction that are here to stay. Third, the NB Scholarship seeks to nurture a social consciousness - among both students, and mentors, to create a virtuous cycle of giving back to society.



Impact #1: Enhanced Retention & Completion of STEM Degrees

The Impact Indicator "Enhanced Retention and Completion of STEM Degrees" does not refer to student level impact; however, has implications for the STEM ecosystem as a whole. There is a global demand for STEM graduates - especially, considering their relevance in fostering technological innovation and economic growth (Yaacob, Z et al, 2025)[31]. However, in parallel, there is a concerning trend of student attrition in STEM Degrees: a paper from the U.S. Department of Education's ERIC database citing AICTE Statistics - estimated upto a 45% drop out rate in Engineering college courses in India. A confluence of factors lead to student drop out at the college level. These include: Attrition in Engineering/STEM Degrees is particularly motivated by a confluence of factors - including ability to cope with academic pressures, institutional factors, socio-economic barriers to education, lack of sense of belonging, among other factors (Keai, L, 2023)[32].

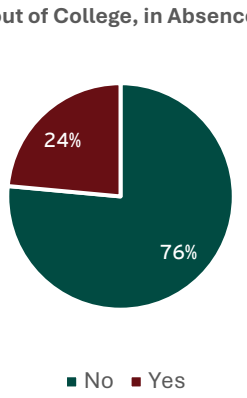


Figure 45: Risk of dropping out of college, in absence of cummins

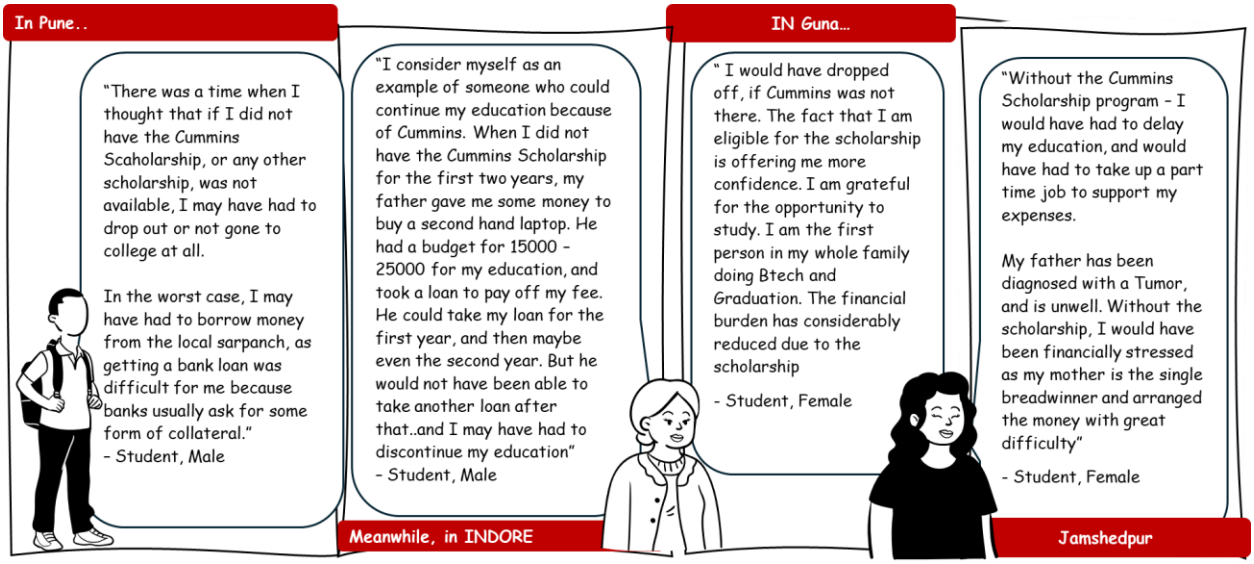
The scholarship program - through the removal of socio-economic barriers has been able to support several students in continuing their education, thus mitigating drop out risk, and enabling them to complete their education. About 71.5% (n = 158) respondents felt that the Cummins scholarship supported them towards the 'completion of their degrees. **23.5% (n = 52, N = 221) re-instated that during the course of their education - their family circumstances may have compelled them to drop out of college, if not for Cummins**. Interestingly, the gender disaggregated data shows that females (51.9%, n = 27, N = 52) were nearly as much at risk of dropping out, as much as males (48%, n= 27, N = 52). As an extension of this - when students asked how they may have managed their education expenses in the absence of the scholarship; about **25.8% (n = 57) respondents mentioned they would have dropped off**, and 1.8% (n = 4) mentioned they would have delayed their college education.

[31] Yaacob, Zaidi & Abdullah, Nabilah & Razali, Fazilah & Ruzaina, Sharipah & Syed Aris, Sharipah. (2025). Bridging the Gap -A Systematic Review of Retention and Attrition in STEM Education Across the Academic Pipeline INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION AND DEVELOPMENT. International Journal of Academic Research in Progressive Education and Development. 14. 1414-1444. 10.6007/IJARPED/v14-i3/26207.

[32] https://files.eric.ed.gov/fulltext/EJ1395162.pdf#:~:text=According%20to%20the%20All%20India%20Council%20for,primary%20reasons%20for%20the%20high%20dropout%20rates.

Between 2022 and 2024, Cummins supported the 866 Nurturing Brilliance Scholars. Among these, nearly 53% (n = 459) of these were studying in their fourth year - close to completing their degrees. The drop-out rate in the two years has been less than 0.46% (n = 4), implying sufficient financial support among students.

Among students who felt that the scholarship had prevented drop out - mostly felt, that it was **by way of their financial aid, that the drop out was prevented**. While the IA study assumed that the mentorship experience may have played a significant role in preventing drop outs - however, it appears that the single-most reason impacting student retention among the current student pool was not the absence of academic motivation (which, the Cummins selection process inherently takes care of), sense of belonging[33], etc, but rather severe financial constraints due to extraneous circumstances (chronic illness, single parent family etc), or poor socio-economic conditions, that impediment their ability to sustain their college education. The teachers and TPOs within colleges have significant potential in motivating students to continue their education, by offering them hope and introducing them to the Cummins scholarship.



The positive impact of the Nurturing Brilliance Scholarship Program on student retention, and prevention of dropouts is a win for strengthening the STEM education ecosystem holistically. It further strengthens Cummins' larger goal of 'creating a pool of talent that can strengthen the manufacturing sector, to support India's Make in India Mission'.

Impact #2: Socio-economic mobility of Students & Families (First Generational Learners, Occupational Mobility, Enhanced Economic Situation)

The Cummins scholarship seeks to support socio-economic mobility of students and their families by way of supporting education. By way of providing financial aid, the scholarship aims to support students to complete their education. The digital support and mentorship provided seek to enable students for the job market through digital upskilling, and career readiness support. **English Speaking support (n = 70), Career Guidance (n = 61), and Moral/Emotional support (n=51)** - in terms of boosting student confidence were among some among the forms of support students (N = 116) found useful towards their placements.

[33] This did not feature in the interviews taken by IA team.

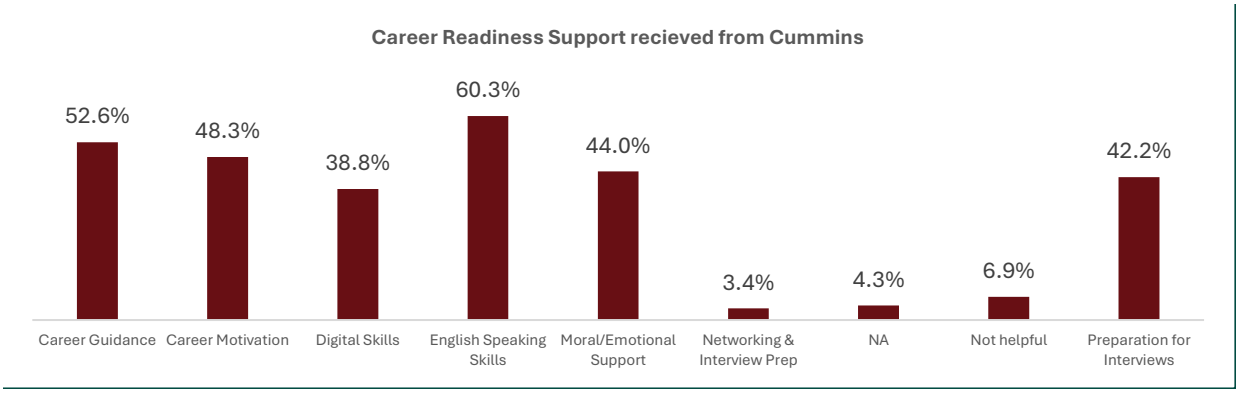
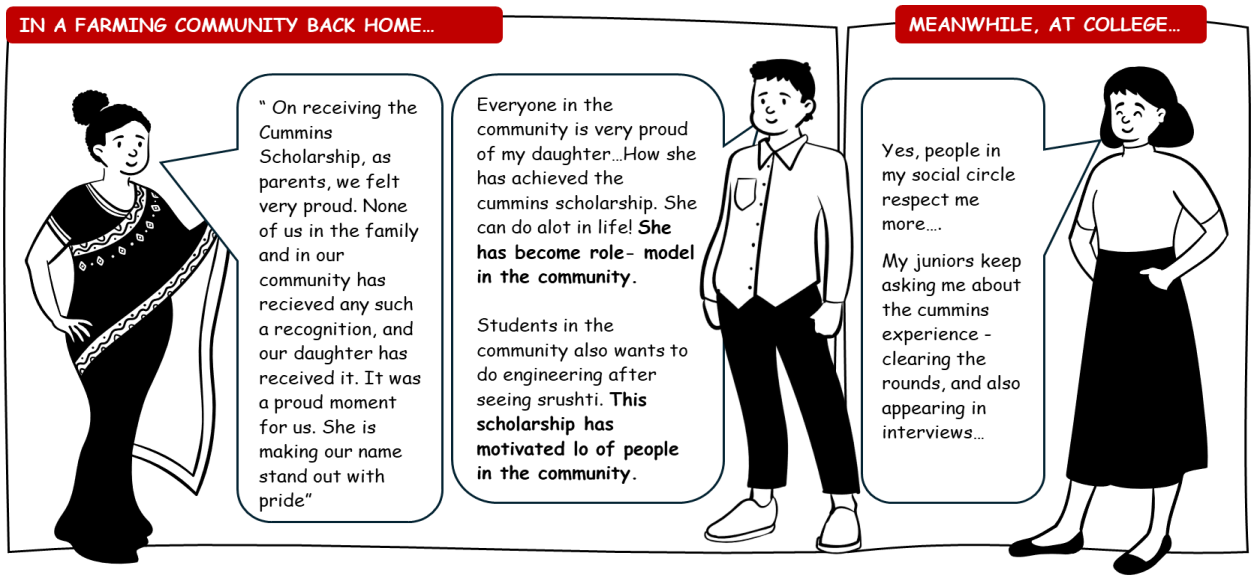


Figure 46: Career readiness support received from Cummins

The effectiveness of these respective interventions has been covered elaborately in Chapter III - Effectiveness. The focus of this section will be to emphasize whether, through these interventions, students' **socio-economic mobility** has taken place.

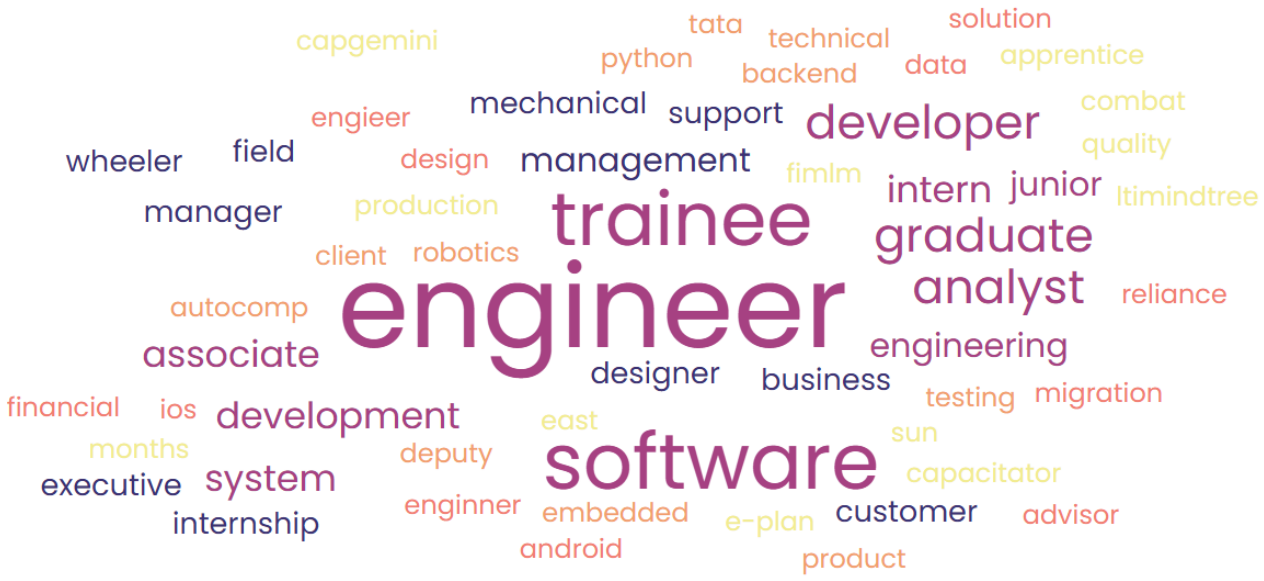


Social mobility refers to the extent to which individuals can move between socio-economic strata during their life-times and between generations (compared to parents). In the context of students - their personal socio-economic mobility may also translate into strong **socio-economic mobility for the family**. For nearly 30.3% (n = 67) of students, the experience of scholarship was correlated with a higher social status, respect and appreciation from their families, societal actors, and college peers, boosting their confidence indirectly.

First Generation College Graduates & Literates: As a good starting point, it is useful to acknowledge that **nearly 64.3% students are first generation college students (n = 142, N = 221). Nearly 54% (n =77, N = 142) among these are first generation female college students. 13% students (n = 29, N = 221) are first generation literates.** This implies that students in their families are among the first to navigate college life in their families - including, navigating college applications, networking, or carving a career in the job-market. The scholarship, mentorship and digital support provided by Cummins are useful forms of financial, social, and knowledge capital to facilitate an upward transition in society.

Occupational Mobility: At an occupational level - several youth belong to families with low and informal sources of income. Nearly 53% (n = 116) parents are farmers - many of which cultivate land that is rainfall

dependent, and another 14% (n = 31) are contractual workers. 18% (n = 40) respondents families belong to a form of salaried work or employment, and 11% (n = 24) run their own business. Several students who are now placed through the completion of their degree belong to core technical roles. The following word cloud represents the various roles across which students have been placed. The mobility represented by these roles represents secure jobs, and salaried work for few among the students who have been placed in full time roles.



Economic Mobility: About 56.9% (n = 66) students from the 52.5% (n=116) students who applied for the jobs received placement offers. While the average income within the family was close to INR 1,23,107; the average package of a placed student was INR 4,92,584. A placement for students with a full-time opportunity would enable nearly 4x increase in income. The spread of income data for household vs placement support is presented in the charts below. A Parent reported,

> *"If we would not have got the scholarship our child might have ended up doing farming with us."*

Interestingly, for several families: financial aid support meant that it freed up household income to support sibling's education. This had a profound impact on reducing financial pressure among parents, while also ensuring that siblings could continue their higher education and studies. A student mentioned

> *"The Cummins scholarship has impacted us a lot. Living in a joint family - I have many sisters and brothers. One of my brothers is also in a private college. Giving the tuition fee for both the children was very stressful. Now, my parents' burden of paying the fee for both children has reduced to a great extent. So, Cummins has not only helped me; but also, my brother to pursue his education".*

The combined impact of scholarship support support's socio-economic mobility, not just through student placement, but also freeing income to support the educational journeys of siblings.

That being said - 43.1% of students did not receive placement offers yet. Challenges to placements include lack of placement support from colleges, ecosystem-level recession in hiring for engineers, and students being unable to secure placements. Some among these placements also represent internships secured for a few

months, and not full-time opportunities - indicating the need for heightened placement and internship support for students.

Several students - nearly 18% (n = 40) students - felt the Cummins' scholarship experience could be strengthened through Internship & Placement support from Cummins' side. Students vocalized the need for internship experiences for future placement opportunities and towards building their profile.

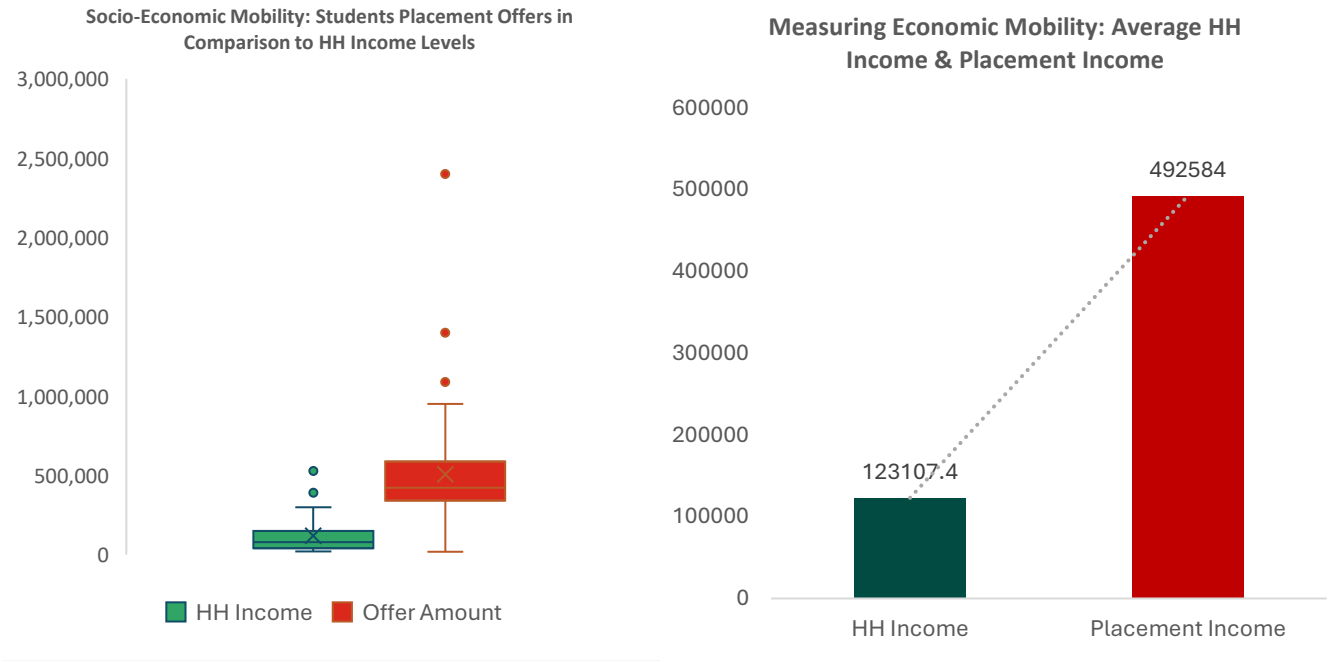


Figure 47: Socio-economic mobility of students - placement offers vs hh income

Impact #3: Pool of Mentees with social consciousness to pay it forward

1.1 Willingness to Act as Future Mentors

Among respondents who received mentorship (including inactive mentors) **- 82% of respondents (N=211, n=174), expressed a clear willingness to act as future mentors** for Cummins scholars. A smaller proportion of respondents, **13% (n=28),** indicated that they might be willing to take on a mentorship role due to limitations of time. **Only 4% (n=9)** reported that they would not be willing to act as mentors. Since several students with inactive mentors were willing to mentor other students - it appears that willingness for students to mentor other students may not be dependent on receiving mentorship; but, rather - **may be intrinsically motivated, and not attributable to the program entirely.**

1.2 Perceived Changes in Social Consciousness

> *Success for us is for scholars to be able to get into an organization of their choice, of his or her desired pay scale, and impacting their income significantly. We also want for scholars to be able to carry forward all that they have learnt from the scholarship program, and be able to give back to their families and inspire others to create a cascading effect…"*
>
> *"Some of the students come from Agriculture Backgrounds. The Cummins Scholarship is provided with the hope that several children will gain engineering knowledge, and for that knowledge to act as an enabler back home… Say, for Engineering to be added in the agriculture space* - **CSR Program Team**

To assess whether this inclination to "pay it forward" translated into action, students were also asked if they had been able to extend the soft skills and career guidance received through the Cummins Scholarship Program to their friends or siblings. Majority of respondents, **69.2% (N=182, n=126), reported that they were able to share the knowledge, skills, or guidance gained with peers or family members**. **30.8% of respondents (n=56)** indicated that they had not yet extended such support.

In majority of the cases - this was as simple as students sharing information and knowledge about the application process about the Cummins's scholarship with their peers. Additionally, student experience of the program varied due to the non-mandatory nature of courses and non-uniform mentorship modules. The information absorbed by students varied significantly and would thus impact the quality of information shared with friends and siblings. **The Program Team may play a role in facilitating stricter monitoring of mentorship programs and soft skill modules, to ensure program fidelity and enable a baseline level of skilling among Cummins Scholars.**

For students to pay forward the social support extended by Cummins - there is a need for students to not only upskill themselves, but also for structured nudges and opportunities for students to be guided to do so, in effective ways to create a virtuous cycle of giving back to society. The Program Team may support this, through structured orientation programs, socially motivated capstone projects, or a parallel fellowship program for socially motivated or innovation-oriented Cummins Scholars to give back to their communities, and sectors.

Impact #4: Deepening Compassionate Consciousness, Self -Efficacy and Employee Wellbeing

As part of Cummins' mandate of EEC[34] - *Every Employee, Every Community* - Cummins upholds a commitment to uplift the communities they engage with, and deepen their community engagement through employee volunteering progams. The NB scholarship program actively engages Cummins employees in multiple capacities, including as mentors supporting students through structured mentorship, as volunteers contributing to awareness-building, college mobilization, and verification and reimbursement processes. As an anticipated impact of the program - the IA considers outcomes not just for the students, but also the employees actively volunteering for this program.

Deepened Compassionate Consciousness

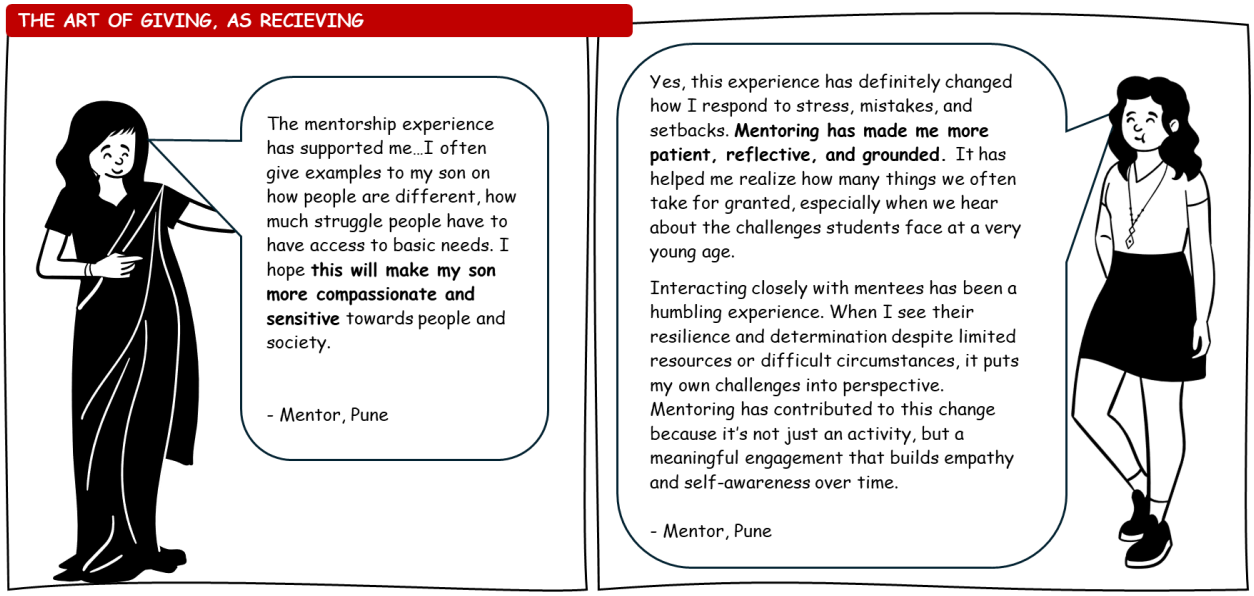
Kristen Neff -a leading authority in Self-Compassion studies, has defined compassion as ""the recognition and clear seeing of suffering...feelings of kindness for people who are suffering, so that the desire to help - to ameliorate suffering - emerges... recognizing our shared human condition, flawed and fragile as it is" (Neff, 2011, p10)[35]. Core component of compassion is to possess self-compassion. We define Compassionate Consciousness as a mindset, or a level of awareness which is able to practice compassion. The IA hypothesized that mentorship and employee volunteering experience is likely to deepen this awareness among mentors and volunteers.

Mentors reported varied experiences regarding emotional growth and self-compassion as a result of their participation in the program. Some **mentors indicated that the mentoring experience did not lead to a significant change in how they respond to stress, mistakes, or setbacks**. In a few cases, mentors shared that they did not perceive a difference in their levels of compassion. This is understandable - as the opportunity to volunteer and mentor for the initiative emerges from a compassionate consciousness. For instance, several

[34] https://www.cummins.com/news/2020/01/08/increasing-cummins-impact-communities
[35] https://www.cci.health.wa.gov.au/~/media/CCI/Consumer-Modules/Building-Self-Compassion/Building-Self-Compassion---01---Understanding-Self-Compassion.pdf

mentors reflected that they themselves did not have access to mentoring support during their student years, which motivated them to step into this role to ensure that current students do not face similar gaps.

However, on the other hand -other **mentors described meaningful emotional growth through sustained engagement with mentees.** These mentors noted increased patience, reflection, and a more grounded response to challenges. Interactions with mentees, particularly those facing significant socio-economic hardships, helped mentors reassess what is often taken for granted. In another instance, a mentor reflected on using these experiences to sensitize their own child, helping them understand social differences and develop greater compassion towards people and society.



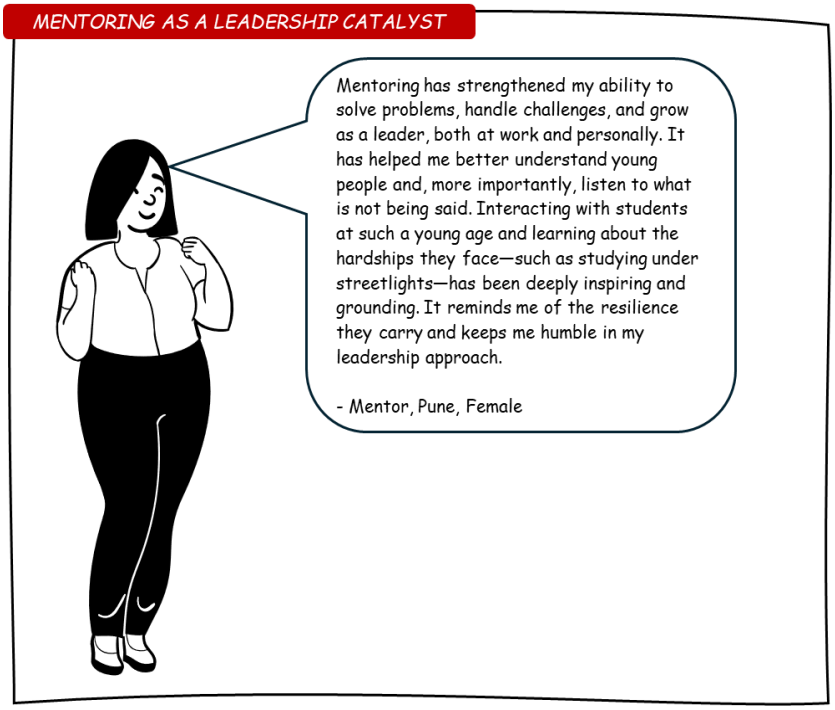
Handling Challenges and Self-Efficacy

Mentors reported that their involvement in the program **enhanced their ability to approach challenges, solve problems, and exercise leadership both professionally and personally**. A recurring reflection was the recognition that every situation and individual requires a different approach, shaped by unique experiences, learning styles, and expectations.

Mentors also highlighted learning how to suggest alternative paths when there was a gap between a mentee's expectations and reality. By acknowledging different thought processes and perspectives, mentors were able to provide support in a way that built trust and respect. This adaptive approach strengthened their confidence in handling complex interpersonal situations.

Importantly, mentors noted that **these learnings translated directly into their professional and personal lives.** By adapting to the different needs of mentees over years of mentoring experience; as a natural extension, mentors have begun guiding team members in different ways based on their individual needs and expectations. Additionally, mentors emphasized that if one approach did not yield results, the experience encouraged them to explore alternative solutions rather than view challenges as dead ends.

Some mentors also reflected on the personal impact of mentoring young individuals facing significant hardships, such as studying under challenging circumstances. These interactions deepened mentors' empathy, strengthened their listening skills including the ability to understand what is not explicitly stated and fostered a more grounded and humble leadership approach.



Employee Well-Being

For several mentors and employee volunteers, the experience of the mentorship program was resonant with their personal values and interests, positioning it, not just as a CSR initiative - but also, an employee wellbeing initiative. A mentor and employee volunteer note:

> *"I was initially motivated to volunteer as a mentor with Cummins' program as a one-off volunteering opportunity-something different from my regular professional routine. At that time, I wasn't entirely sure what to expect, but the idea of engaging with students and having meaningful conversations sounded interesting and felt like it could add value.*

> *As I became involved, I realized that the experience was far more impactful than I had anticipated. Mentoring 7-8 students gave me the opportunity to understand their perspectives, challenges, and aspirations. The interactions were not just beneficial for them, but also deeply enriching for me."* **- Mentor, Pune**

> *"We had not been forced to do this. Our decision to volunteer stems from a sense of personal interest, and company value - care for community."* ***- Employee Volunteer, Jamshedpur***

Volunteers report a deep sense of satisfaction and positive emotional responses when observing mentees' progress and achievements. Supporting student's upward mobility, and the chance to give back to society is particularly enriching for volunteers.

> *"Yes, I definitely experience a strong sense of happiness and pride when I see my mentee progress or succeed. It makes me pause and step back to reflect on the journey-both theirs*

and mine. Seeing their growth, even in small milestones, is deeply fulfilling." - Mentor, Pune

Employee wellbeing was indirectly impacted through the personal growth and avenues for reciprocal learning offered by the mentorship. There were of-course, variations in the experiences of mentors in how they perceived this growth. Mentors stated being touched by mentees resilience and clarity, in addition to shaping their leadership and collaborative styles.

> *"I learn about resilience from my mentee. She faced significant personal challenges from a young age, including the loss of a parent and added family responsibilities. Despite these challenges, she approaches life with remarkable maturity and clarity. One moment that stayed with me was when she received prize money and a scholarship. Instead of spending it on herself, her first thought was to buy a saree for her mother. Professionally, this learning has influenced my behaviour and leadership style. It has strengthened my practice of active listening and being fully present rather than assuming or directing. Overall, learning from my mentee has made me more grounded.*
>
> *Professionally, this experience has shaped my leadership style. I now rely more on asking leading questions and encouraging my team to share ideas instead of directing them. This has created more open discussions, stronger collaboration, and better ownership within the team. My problem-solving approach has also improved. Mentoring taught me to break challenges down, understand the root cause, and co-create solutions-an approach I now apply in my day-to-day work. On a personal level, this journey has made me more motivated, and purpose driven. Overall, mentoring has not only strengthened my skills but also helped me grow as a more mindful leader and collaborator".* ***- Mentor, Female, Pune***

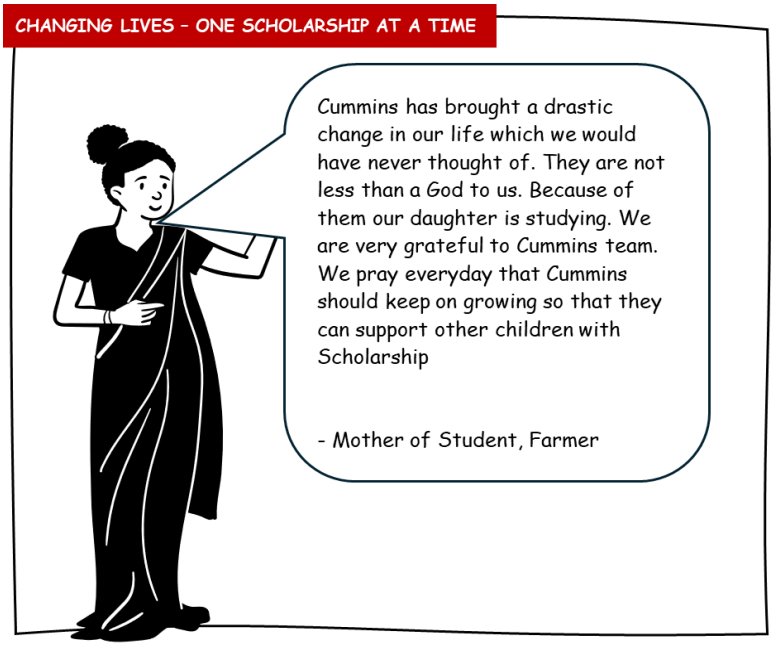
> *"Youth have different ways to resolve issues, they are much clear on their goals and clarity. They have clear mindset and goal."* ***- Mentor, Female, Pune***

> *"Whenever any new joinee comes in, I now guide them on how to build their career." - Mentor, Male, Pune*

> *" I am motivated to volunteer, as there is a chance to interact with students and colleges, and do some social activity for students. You can show your leadership skills here..and learn somethings from the students as well. You also gain visibility, and can learn from the CFT through this program" - Volunteer, Female, Indore*

Professionally, volunteers reported enhanced leadership, communication, and coordination skills. Managing outreach activities across multiple colleges and locations, engaging with institutional leadership, and organizing events strengthened their leadership presence and visibility within the organization. These experiences also supported skill development in planning, stakeholder engagement, and event management.

Impact #5. Greater Goodwill towards Cummins among Local Community:



The Goodwill of Foundations within the local community - is an important indicator of program success, and sustainability within the community it embeds itself in. Among students, and parents - stakeholders expressed profound gratitude towards the organization for supporting education journeys of children.

From the perspective of employee volunteers, Cummins' engagement through the program contributed positively to institutional relationships and goodwill. A volunteer shared, Cummins was recognized as a reputed organization, and the program had supported horizontal growth in relationships. However, experiences varied across institutions: particularly, for colleges where scholarship seats were limited, some institutions expressed unmet expectations, particularly around Cummin's responsiveness towards their feedback - including requests for additional opportunities such as internships, plant visits, or continued engagement beyond the scholarship. Furthermore, TPOs also shared an interest in greater inclusion in the program. **While many of these expectations were beyond the program's original scope - however, the requests signal lucrative opportunities for the program to deep scale itself among the relevant stakeholders.**

Chapter 6: KEQ V – Program Sustainability

According to the OECD-DAC criteria, Sustainability[36] is defined by the degree to which the positive outcomes of the intervention persist or are expected to persist over time. It focuses on the financial, social, institutional, environmental, economic capacities of the intervention to sustain the benefits over time.

Assessing the sustainability of the outcomes and intended impacts

The program has demonstrated avenues where the intended outcomes reflect the scope of long-term persisting impact over students. These are observed across financial support for education continuity, asset-based support enabling independent learning, and mentorship mechanisms that facilitate capability development and knowledge transfer.

Sustainability Linked to Financial Support

As shared by students, 71.5% (n=158) responses acknowledged the support of NB Scholarship program in completion of their degrees. Further, 69% (n=153) responses highlighted enhanced motivation to perform academically, 62% (n=138) responses mentioned increased self-confidence / can do attitude in academics as well as 36% (n=80) responses mentioned enhanced motivation led to increased academic scores. In addition to these respondents also experienced enhanced confidence levels, problem solving ability on their own as well as ability to handle difficult situations during the study.

Degree completion represents a key transition point in student's educational trajectories. Completion enables progression into higher studies or entry into employment, thereby extending the influence of initial financial support beyond the period in which it was provided. Student responses suggest that the scholarship-supported completion of education is associated with the opening of subsequent pathways.

In parallel, reported improvements in academic motivation, performance, and self-confidence reflect changes in learning orientation and behaviour during the course of study. Qualitative feedback further highlights improvements in perceived competence, problem solving ability, and the capacity to manage academic and personal challenges independently. These changes are described by students as emerging during the program period and continuing as part of their academic engagement. This indicates that financial support was associated not only with immediate educational continuation, but also with behavioural and capability-related changes that are relevant to longer-term academic progression, employability, and stability in students' life trajectories.

Sustainability Linked to Laptop provision

The laptop provision reflects an asset-based approach to learning support. It enables continued access to learning resources and skill development beyond the period of direct program inputs. As shared by the student's laptop provision functioned as a key learning enabler, particularly for students enrolled in Computer Science, Information Technology, Artificial Intelligence, and Machine Learning disciplines. Students described the laptop as an essential tool for maintaining continuity in learning, completing coursework, and engaging with digital and technical requirements for their programs.

Access to personal laptop reduced reliance on shared infrastructure such as institutional labs or external facilities, enabling more consistent and independent engagement with academic work. **Students reported that this access supported the development and practice of digital capabilities, including coding skills, data analysis, AI-related tools, and the use of productivity software.** The laptop represents a durable

[36] Better Criteria for Better Evaluation (EN)

learning asset that continues to support academic engagement and skill-building over multiple years. Student responses suggest that skill development facilitated thorough sustained access to digital tools contributes to ongoing academic participation and preparation for tech-oriented career pathways.

Sustainability Linked to Mentorship

Among respondents who received mentorship support (including those with inactive mentors), 82% (n=174 out of N=211) expressed a strong willingness to serve as mentors for future Cummins scholars**. The strong willingness of scholars to become future mentors significantly enhances the sustainability of the program by creating a self-sustaining support ecosystem and strengthening alumni engagement.** Furthermore, majority of respondents i.e., 69.2% (n=126 out of N=182) reported that they were able to pass on the knowledge, skills, or guidance gained through the scholarship program to their peers or family members. Sharing knowledge, skills, and guidance with peers and family members significantly strengthens the sustainability of the program's outcome by creating a multiplier's effect beyond direct beneficiaries, intergenerational impact and reduced dependency on external resources.

By fostering academic success, digital competence, and career readiness, the intervention ensures that its benefits continue to persist well beyond the period of direct support, underscoring the program's overall sustainability.

Challenges & Barriers to sustaining project outcomes

Although the program has shown robust and sustainable results, there are several potential challenges and barriers that could hinder the long-term continuation of these benefits if they are not addressed proactively.

Table 14: Challenges & Way forward for sustaining program outcomes

Challenges & Barriers	Way Forward
Post Scholarship Continuity and Alumni Engagement: • The absence of a structured post-scholarship follow-up mechanism poses a significant challenge to sustaining long-term impact. • Key issues include limited visibility into graduate's career or education trajectories, lack of a formal alumni network to enable peer learning, mentoring, and career guidance, and reduced access to support during early employment or higher education transitions. • This gap weakens continuity of mentorship and diminishes opportunities for leveraging alumni as role models and resources for current scholars.	To ensure continuity and long-term impact, **Cummins may implement a structured alumni engagement strategy.** • This may include creating a **dedicated digital alumni platform for** networking, mentorship, and career guidance; • Scheduling regular quarterly follow-up post-completion to track progress; and **organizing alumni-led webinars, career panels, and job fairs** to connect graduates with industry opportunities. • Additionally, enabling alumni to **volunteer as mentors for current scholars and contribute to placement support** will foster a sustainable cycle of guidance.
Scholarship Claim Process: Although the scholarship claim process is well-structured and robust, it presents several challenges that affect efficiency and student experience. Students are required to physically submit multiple documents, often necessitating travel to distant campuses with limited connectivity, making the process time-consuming. The approval workflow involves multiple trustee signoffs and batch processing (10-15 students together), which further delays disbursement. Additionally, volunteers observed that students lack clarity on documentation requirements, adding to the complexity.	• To streamline operations and improve transparency, Cummins may implement **digital submission mechanisms** for documents, **coupled with real-time status tracking** to reduce delays and enhance visibility. Providing clear, step-by-step guidance on documentation requirements can minimize errors and confusion. • Additionally, **expanding engagement beyond top-tier colleges through additional touchpoints** will improve accessibility and create a more student-friendly experience. Collectively, these measures will make the claim process faster, more efficient, and supportive for students.

Mentor-mentee Engagement gaps and students' well-being: The sustainability of mentorship outcomes is affected by engagement gaps such as inconsistent mentor availability, delayed or limited responsiveness from mentees, and lack of structured interaction schedules or clearly defined expectations. These issues reduce the consistency and effectiveness of mentorship as a long-term support mechanism. Additionally, students from underprivileged and first-generation backgrounds often face heightened academic and psychosocial pressures. Without continued support and coping strategies, these challenges can impact academic engagement, confidence, and post-completion transitions, weakening the durability of program benefits.	• To strengthen the sustainability of mentorship and address academic and psychosocial pressures, Cummins may implement **structured engagement plans with clear schedules and expectations** for both mentors and mentees. • **Mentors to be equipped with training and resource toolkits** to support students in managing stress, improving study strategies, and building confidence. • **Regular check-ins and progress tracking through digital platforms** will ensure continuity and timely intervention. Additionally, creating escalation channels for students facing severe challenges. These interventions will make mentorship more consistent, responsive, and impactful, while helping students cope effectively with academic and personal pressures.
Strengthened Stakeholder Engagement: The sustainability of program outcomes might be impacted by the relationship between Cummins and college stakeholders, particularly Training and Placement Officers (TPOs). Currently, TPO involvement is minimal, limited to awareness activities, and some colleges have expressed declining trust in the program due to students not being selected for the scholarship program. This lack of structured collaboration reduces opportunities for skill-building, placement support, and trust-building, creating a threat to long-term program impact.	• Cummins may adopt a proactive institutional engagement strategy to address these gaps. **This includes building formal partnerships with colleges through Memorandums of Understanding (MoUs)** to ensure shared accountability for student success. • **Strengthen TPO involvement** by defining clear roles beyond awareness- such as facilitating skill-building workshops etc. • **Introduce regional engagement forums** to bring together college administrators, TPOs for trust-building and collaborative planning. • Additionally, **Cummins may standardize training and placement support** across institutions by offering centralized career readiness modules and apprenticeship support. These measures will reduce variability, enhance institutional trust, and create a more equitable and sustainable program impact.
Utilization of Soft Skill Modules: A significant number of students do not access the soft skills modules, and some are unaware of their availability. This limits the program's ability to strengthen communication, aptitude, and professional readiness, reducing the overall impact on employability.	• Cummins may make completion of **soft skills modules mandatory for all scholarship recipients** to ensure consistent benefit. This can be supported by integrating module completion into the scholarship timeline, setting clear deadlines, and tracking progress. • Regular reminders, mentor reinforcement during sessions, and linking module completion to placement readiness activities can further drive engagement.
Challenge in Placements: Some students reported not receiving placement offers, while others expressed dissatisfaction with the roles secured. This gap in placement support limits employability outcomes and weakens the program's ability to create a sustainable impact.	• Cummins may strengthen placement support by **organizing career engagement platforms such as job fairs, career fests, and networking events** that connect students with recruiters, alumni, and industry partners. • Introducing dedicated **placement assistance through resume-building workshops, mock interviews, and skill alignment** sessions can improve job readiness and match students with better opportunities.

Chapter 7: Evaluation of Intervention from the lens of OECD-DAC Criteria

For the Cummins Nurturing Brilliance intervention, the OECD-DAC framework has been carefully applied to assess its overall merit. The framework outlines criteria- relevance, coherence, effectiveness, impact, and sustainability- for evaluating interventions. The table below presents these criteria along with their definitions, the corresponding assessment of the intervention, and Wayforward to enhance its performance.

Table 15: Assessment of Intervention from OECD-DAC Criteria

#	OECD-DAC Criteria	Assessment of Intervention
Relevance		
1.	*OECD-DAC refers to Relevance as "the degree to which the intervention's objectives and design address the needs, policies, and priorities of beneficiaries, as well as global, national, and institutional partners, and remain responsive as circumstances evolve".* *The criteria have been used to assess the relevance of the program against the needs and priorities of the beneficiary as well as its responsiveness to the same.* *The assessment has also been undertaken to look at the relevance of the intervention towards the needs of the marginalized sections of the society*	**Beneficiary Need and Priorities:** The Nurturing Brilliance scholarship program is relevant for students from disadvantaged backgrounds. Many are first-generation college learners from families with limited educational exposure and low-income households, often dependent on agriculture for livelihood. These students belong to families residing in semi-pucca or kuchha houses and multiple members sharing a single room. Furthermore, Digital access is a major challenge, as most students do not have a personal laptop for academic work. These constraints highlight the scholarship's vital role in reducing financial burden, enabling access to higher education, and fostering social mobility for underserved communities. **Way Forward:** Cummins may look into having **targeted outreach programs** that prioritize early engagement with students in their 1st and 2nd year of undergraduate studies, ensuring they have sufficient time to benefit from scholarships across multiple semesters. To further strengthen the pipeline, expand the outreach policy to include school-level initiatives, focusing on students who are about to complete their formal education.
Coherence		
2.	*Under the OECD-DAC Criteria, "Coherence" refers to the compatibility of the intervention with other interventions in a country, sector or institution. In other words, it describes how well an intervention aligns with and complements other initiatives within a country, sector, or institution.* • *Internal coherence examines the extent to which the intervention works in synergy with Cummins' own programs as well as with government and international policies* • *External coherence assesses how consistent and complementary intervention is with the efforts of other actors and initiatives operating in the same context.*	**Internal Coherence:** The scholarship program aligns with national and global education and development priorities. It complements UN Sustainable Development Goals (SDG) 4 (Quality Education) and SDG 8 (Decent Work and Economic Growth) by promoting equitable access to higher education and improving employability. At the policy level, it supports the vision of NEP 2020, which emphasizes inclusion, affordability, and holistic student development. Additionally, the program resonates with state initiatives such as Dr. Punjabrao Deshmukh Vasatigruh Nirvah Bhatta Yojna, reinforcing efforts to reduce financial barriers and enable higher education for marginalized communities. **External Coherence:** The Cummins Nurturing Brilliance Program also complements other renowned scholarships through its unique provisions of providing laptop, full reimbursements, mentorship support as well as soft skill training support. **Wayforward:** • **Build Strategic Partnerships for Student Support:** Enhance external coherence by **collaborating with other scholarship providers, educational institutions, and CSR entities to create complementary support systems for students.** This will allow sharing of best practices, co-hosting outreach programs, and integrating mentorship and career guidance into scholarship initiatives. • **Establish a National Scholarship Consortium:** Form an **independent consortium in partnership with corporates, NGOs, and government bodies to pool resources for greater funding, ecosystem support, and unified outreach**. This approach can evolve into a national initiative, driving industry

		engagement, increasing sustainability, and amplifying impact through collective efforts. • Deepen **internal coherence by strengthening mentorship structures**, setting clear mentor-mentee outcomes and employee recognition.
Effectiveness		
		The Nurturing Brilliance Programme supports students through three core interventions: financial assistance for education, provision of laptops, and mentorship support. The effectiveness of the program amongst the lives of students has been established by illustrating improvements in confidence and self-efficacy, social and financial well-being, digital skills, and readiness to make informed career choices. The program can be rendered effective against multiple outcomes such as enhanced self-efficacy, confidence, social & financial well-being, academic achievement and performance. It also includes outcomes as effectiveness of laptop provision on student outcomes, encompassing digital literacy & computer proficiency, flexibility, effectiveness & efficiency of study time, academic achievement & performance, mentorship support, career readiness and employment. **Outcome: Enhanced Self-Efficacy and Confidence Among Students** The findings demonstrate that students exhibited a substantial improvement in self-efficacy and confidence after receiving the scholarship. **Self-efficacy scores increased from 2.57 before the scholarship to 4.18 after, while confidence scores rose from 2.52 to 4.49, reflecting a gain of 1.96 points.** This progress was driven by multiple reinforcing factors, including financial relief, mentorship, skill development, and improved emotional well-being. Reduced financial stress emerged as the primary driver, complemented by the achievement of clearing a competitive selection process, which instilled pride and dignity. These factors collectively motivated students and strengthened their belief in their capabilities.
3.	*Refers to the degree to which the intervention has achieved, or is likely to achieve, its intended objectives and outcomes, including variations in results across different groups*.	**Outcome: Enhanced student social and financial wellbeing** The findings highlight that 13.1% of respondents were first-generation learners, while 64.3% were first-generation college students. Further, to manage household funding gaps not covered by the scholarship, most respondents relied on family savings, followed by borrowing from family or informal sources and taking loans. **The respondents also attributed the scholarship's significant role in covering nearly 51% of the average annual expenses impacting their social and financial well-being**. **Outcome: Students able to successfully complete education degree** **Majority of scholars, 72% (N = 221, n = 158), reported that the financial support helped them complete their academic degrees**. For a smaller group, the assistance had a more specific impact, with 8% (N = 221, n = 18) stating that it directly enabled their enrolment in the chosen engineering program, underscoring the scholarship's role in supporting access to specialized higher education pathways. **Outcome: Enhanced Digital Literacy and Computer Proficiency** Students reported substantial improvements in digital skills across basic, academic, and advanced domains. Comfort with essential tools such as email, cloud storage, video conferencing, online information search, and productivity software increased markedly. **Significant gains were also observed in data analysis, coding, use of Gen-AI tools, and professional platforms like LinkedIn**, indicating enhanced digital readiness for academic work and future careers. **Outcome: Enhanced Academic Achievement and Performance** The scholarship acted as a catalyst for academic success by reducing financial stress and freeing cognitive and emotional bandwidth for learning. Financial security motivated students to excel, reinforced commitment to studies, and enabled regular class attendance. **Quantitatively, 69% of students reported improved academic performance, 65% noted reduced financial pressures,**

and 40% credited the scholarship for consistent class participation. These factors collectively created an enabling environment for sustained academic achievement.

Outcome: Enhanced Flexibility, Effectiveness, Efficiency of Study Time
Students primarily used the provided laptops for academic purposes, with moderate to high academic usage on weekly basis. **Access to laptops significantly enhanced learning flexibility, assignment completion, and self-directed study.** Many students also used laptops to enroll in additional courses and develop new digital skills. In the absence of a laptop, most students anticipated disruptions to their study schedules, either requiring longer study hours or resulting in reduced academic engagement. Hence, laptop enhanced flexibility to study and better utilization of time

Outcome: Mentorship Support-Improved Employability Skills, Career Readiness, Career Motivation, Self- efficacy, Decision-Making, Enhanced Interpersonal Skills and Support Systems
The mentoring experience was largely positive, marked by strong trust, approachability, empathy, and career-focused guidance from mentors. Students felt respected and supported in discussing academic and career matters, indicating effective mentor-mentee rapport.

Further, students demonstrated greater clarity and motivation regarding career goals, stronger goal-setting skills, and a better understanding of career pathways. Mentoring also positively influenced personal development, leading to increased confidence, improved interpersonal relationships, and better emotional well-being. Overall, the results indicate that mentoring had a strong and meaningful impact on both career readiness and personal growth.

However, insights also indicate that mentor-mentee engagement was largely professional rather than personal, with many students not seeking mentors' support for personal issues. Differences in technical domains also limited networking support. Additionally, some students experienced limited or inconsistent mentoring due to non-reachable/disengaged mentors or unclear roles and expectations.

Outcome: Empowering students for career readiness and employment
Just over half of the students (52.5%) began applying for jobs or participating in placements, while many others reported it was too early but planned to do so later. Among those who received job offers, placement salaries were 4x higher than students' household incomes, indicating a strong potential for upward socio-economic mobility. Most students expressed moderate to high satisfaction with their job offers.

Students credited the scholarship with supporting their employability in multiple ways, particularly by improving English communication skills, providing career guidance and motivation, and helping with interview preparation. Emotional support and digital skills development were also commonly cited, highlighting the scholarship's comprehensive role in strengthening students' readiness for employment.

However, insights also reveal that **some students faced challenges in securing employment**. The most common were language and communication skills, English proficiency, which affected interview performance and professional interactions. Technical skills gaps, and insufficient interview preparation also hindered placement readiness. Some students also cited other issues, mainly broader labour market constraints such as limited job opportunities and few companies participating in placements. Additional challenges included lack of interview training, plans for higher studies, and personal preferences.

The TPO confirmed these findings, emphasizing that students- particularly from rural or vernacular backgrounds-often have strong academic knowledge but lack practical experience, industry-relevant skills, corporate exposure, and professional presentation abilities. Overall, both individual and structural factors influenced employment outcomes.

Way Forward:

- **Cummins as a Thought Leader:** Cummins may conduct a rigorous study to measure the significant gains mentees experience in areas such as self-efficacy and mentorship outcomes. The findings should be analyzed and documented to highlight the program's impact and effectiveness. Sharing these insights with the broader education and CSR sector will enable replication of best practices, **strengthen Cummin's thought leadership**, and position the program as a benchmark for impactful mentorship initiatives.

- **Improve Mentee Orientation and Program Awareness: Develop a structured orientation for mentees to clarify the purpose and benefits of mentorship beyond problem-solving**. Include monthly touchpoints, clear expectations, and communication on how mentorship supports career development. Reinforce this through mentor-led sessions and program guidelines.

- **Strengthen Mentor Recruitment and Engagement:** Given the significant outcomes and large effect sizes observed, the mentorship program has immense potential to drive student success. To maximize this impact, **recruit mentors based on clear criteria, ensuring they are genuinely interested and committed.** Implement structured onboarding, define expectations, and monitor engagement so mentors remain active and effective throughout the program.

- **Domain based Mentor-Mentee Mapping: Assign mentors to mentees based on technical competence and domain alignment to elevate the mentorship experience**. Avoid generic or cross-domain pairing, as it significantly impacts the quality and relevance of guidance. Implement a structured mapping process that considers academic background, career goals, and technical expertise.

- **Digitize Processes and Expand Engagement for Accessibility:** To streamline operations and improve transparency, **implement digital submission mechanisms for documents, coupled with real-time status tracking to reduce delays and enhance visibility.** Provide clear, step-by-step guidance on documentation requirements to minimize errors and confusion.

- **Mandate soft skills module: Make soft skills modules along with language and communication skills mandatory for all scholarship recipients, integrating completion into the scholarship timeline with clear deadlines and progress tracking**. Reinforce engagement through regular reminders, mentor support, and linking module completion to placement readiness activities.

- **Build a Robust Internal Monitoring & Evaluation (M&E) System: Cummins may establish a structured internal M&E framework** that covers both financial processes and mentorship fidelity. On the finance side, define SLAs (e.g., reimbursement turnaround <30-45 days), implement checklist-based verification, delay tracking with root-cause analysis, and an escalation matrix for cases exceeding 2-3 months. On mentorship, introduce fidelity checks (attendance, frequency, agenda quality), standardized feedback loops (monthly pulse surveys for mentees and mentors), and quality checks to ensure sessions are effective, not just frequent.

Impact		
5.	• *Impact refers to the extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level effects.*	**Impact:** The scholarship program has created positive impact on the lines of enhanced retention & completion of STEM degrees, followed by socio-economic mobility of students/families, grooming students as mentees with social consciousness, employee well-being as well greater goodwill towards Cummins amongst community members. **Impact #1: Enhanced Retention & Completion of STEM Degrees** The scholarship program has successfully addressed socio-economic barriers, helping students continue and complete their education while minimizing dropout risks. About 71.5% of respondents stated that the Cummins scholarship

- *It aims to capture the significant and potentially transformative effects of an intervention, from social, environmental, and economic perspectives.*

supported them in completing their degrees, and 23.5% indicated that they might have been forced to leave college due to family circumstances if not for the scholarship. Female (51.9%) and male (48%) students were almost equally at risk. In the absence of the scholarship, 25.8% would have dropped out and 1.8% would have postponed their studies. From 2022 to 2024, Cummins supported 866 scholars, over half of whom were in their final year, with a very low dropout rate of 0.46%, demonstrating sufficient financial support for students.

Impact #2: Socio-economic mobility of Students & Families

64.3% respondents also came from first generational college going background, illustrating the pathways of social mobility ensured through the scholarship. Additionally. **about 56.9% (n = 66) students from the 52.5% (n=116) students who applied for the jobs received placement offers with average annual package of INR 4,92,584 when compared to the average family income of INR 1,23,107.** The financial assistance, mentorship, and digital resources offered by Cummins serve as valuable forms of financial, social, and knowledge capital, supporting students in achieving upward social mobility.

Impact #3: Pool of Mentees with social consciousness to pay it forward

The insights indicate a strong culture of "paying it forward" among scholarship recipients. Among those who received mentorship, 82% expressed a willingness to become future mentors for Cummins scholars. **Additionally, 69.2% of respondents reported sharing the soft skills, career guidance, and knowledge gained through the program with friends or family members, demonstrating the program's ripple effect beyond direct beneficiaries.**

Impact #4: Deepening Compassionate Consciousness, Self -Efficacy and Employee Wellbeing

Mentors' experiences in the program varied, with some noting little change in emotional growth, while others reported increased patience, empathy, and adaptability through engagement with mentees. Many mentors gained confidence in guiding diverse perspectives, strengthened leadership and problem-solving skills, and experienced satisfaction in supporting students' progress and upward mobility. The program also provided personal growth opportunities, with some mentors applying lessons beyond professional contexts. Overall, mentorship enriched both personal and professional development, though experiences differed among participants.

Impact #5: Greater Goodwill towards Cummins among Local Community

Insights indicate that Cummins' engagement through the program generally strengthened institutional relationships and goodwill, with volunteers noting enhanced recognition and horizontal growth in collaborations. However, experiences varied across institutions. Colleges with limited scholarship seats reported unmet expectations, particularly regarding responsiveness to feedback and requests for additional opportunities like internships, plant visits, or ongoing engagement. TPOs also expressed interest in greater involvement in the program.

Way Forward:

- **Foster Student Social Responsibility:** Cummins may create structured opportunities for students to give back to society as part of the scholarship program. While the current expectation is that students will contribute to their communities in the future, there is no formal mechanism to support this. To address this**, Cummins may create a platform for Cummins-supported scholars to engage and groom simultaneously with the idea of social consciousness towards paying back to society**. Additionally, building an alumni network where graduated scholars mentor and guide current students will strengthen the sense of community and continuity.

- **Fellowship Program:** Cummins may look **to launch a parallel fellowship program designed to provide structured internship or apprenticeship opportunities for scholarship recipients.** This fellowship would include hands-on projects aligned with industry needs, mentorship from Cummins professionals, and a minimum or competitive stipend to ensure participation without financial constraints. By embedding these opportunities into the scholarship journey, Cummins can enhance practical exposure, improve

		employability, and create a clear pathway for students to transition from academic learning to professional readiness. • **Mandatory Foundational Courses:** Cummins may structure the program design to include **uniform and mandatory foundational courses for all scholarship recipients, ensuring a basic level of skilling across candidates.** These courses can be delivered through online modules and reinforced by mentors during regular interactions. Mentors should actively check scholars' progress on these modules and provide guidance where needed. This approach will create consistency in skill development, improve employability, and ensure every student meets a minimum competency standard. • Establish structured engagement with colleges, institutions, TPOs, and other stakeholders to enable seamless collaboration and drive the achievement of outcomes.
Sustainability		
6.	*Sustainability refers to the extent to which the benefits of the intervention continue or are likely to continue.*	The scholarship enabled degree completion, reduced financial stress, and provided laptops as lasting academic assets for continued learning, especially in technology-driven fields. Mentorship amplified this impact, with most scholars willing to guide future cohorts. These outcomes create a cycle of empowerment- progression to higher education or employment, digital inclusion, and alumni-driven mentorship- ensuring long-term program sustainability. However, to ensure the benefits continue, the below mentioned wayforward need to be adopted. **Way Forward:** • **Alumni Connect:** To ensure continuity and long-term impact, **Cummins may implement a structured alumni engagement strategy. This may include creating a dedicated digital alumni platform for networking, mentorship, and career guidance; scheduling regular quarterly follow-up post-completion to track progress; and organizing alumni-led webinars, career panels, and job fairs to connect graduates with industry opportunities**. Additionally, enabling alumni to volunteer as mentors for current scholars and contribute to placement support will foster a sustainable cycle of guidance. • **Strengthened TPO involvement with Defined roles**: Move beyond awareness by clearly defining the role of TPOs in the scholarship program such as **facilitating skill building workshops for students, supporting application processes and mentoring, acting as a liaison between colleges and the scholarship team** for timely communication. • **Introduce Regional Engagement Forums:** Create **regional forums that bring together college administrators, TPOs, and program stakeholders for trust-building, collaborative planning, and feedback exchange**. These forums should include structured sessions for sharing best practices and addressing challenges collectively.

Annexure 1: Review of Literature

The Theory of Change is constructed after undertaking a thorough literature review of the Program Components, and how they have impacted student outcomes from different perspectives. The review, examines existing evidence on the impacts created by the independent components of the NB Scholarship program - i.e. financial assistance, take-home laptops, mentorship and soft-skill development.

1.1. Provision of Financial Assistance on Educational Outcomes

The provision of financial assistance towards students is known to have multi-faceted impacts on the lives of students. Not only, is it well-established, that grants in aid increase the probability of[37] enrollment of students in colleges, however, also have **impacts on student persistence and degree completion, preventing drop-outs**. A meta-analysis of 43 studies, reveals that scholarship programs lead to an estimated increase in the 'probability of student persistence (through college) and degree completion between 2 and 3 percentage points' – i.e. students with financial aid have a higher likelihood (by 2% - 3%) to persist through college and complete their degrees, than without. Moreover, when considering the dollar amount of aid - an additional $1,000 of grant aid improves persistence and attainment by 1.5 to 2 percentage points (Nguyen, T.D., et al, 2019), This has implications - i.e. not just for the provision in aid, but also emphasizes, that the amount of aid provided, can significantly impact student retention in colleges.

The mode, or method of providing financial support to students is also likely to have an impact on student grades. In a Randomized Control Trial study conducted by Joshua Ingrist - Nobel Prize Winning Economist (2021), along with Daniel Lang and Philip Oreopoulos (2009), interestingly sought to understand the implications of academic support services, financial incentives, and the combined impact of both on student academic performance. The study was designed across three treatment groups: (a) one treatment group was offered academic support services, (b) the second arm, was offered financial incentives for good grades, and (c) a third group combined both interventions. The study revealed - that students in the third arm - i.e. receiving both financial incentives and academic support services, had raised grades. These impacts were especially pronounced for women, with no differentials seen among men. Even though the intervention was provided in the first year only, the impacts spilled over into the second year. In the context of the Cummins Scholarship Program, the study emphasizes the combined impact of financial incentive support tied to grades, and has implications on how **the program may lead to students perceiving an increase academic performance**.

Given below is a summary of the various ways social scientists have broadly interpreted the impact of financial aid programs on students, and the ways it may shape their educational trajectories respectively:

Table 16: Summary of Impacts of Scholarships on Educational Outcomes

#	Impact	Relationship	Reference
1	Student Retention	Scholarship programs are known to cause higher degrees of student retention.	(Nguyen, T.D., et al, 2019), (Moores et al, 2022)
2	Completion of Degree[38]	Scholarship program is positively correlated with higher rates of degree completion	(Nguyen, T.D., et al, 2019)

[38] Nguyen, T. D., Kramer, J. W., & Evans, B. J. (2019). The Effects of Grant Aid on Student Persistence and Degree Attainment: A Systematic Review and Meta-Analysis of the Causal Evidence. *Review of Educational Research*, *89*(6), 831-874. https://doi.org/10.3102/0034654319877156 (Original work published 2019).

3	Academic Interest & Performance[39][40]	Positive Relationship is noted between provision of financial aid + academic services/mentorship. However - there may be gendered implications to this.	(Angrist, J et al, 2009); (Ahmed et al, 2022), (Barrow & Rouse, 2013)
4	Reduction in Educational Debt[41]	Scholarship programs can positively reduce educational debt, that students may have had to incur through loans in the absence of aid.	(Patel, R. et al, 2013)

1.2. Provision of Home Computers on Educational Outcomes

The provision of home computers are thought to have provided important educational inputs for several reasons, including the **completion of course assignments** through access to the internet, spreadsheets, and other relevant software (Lenhart et al., 2001, 2008 in Farlie R.W, 2012).; **provision of autonomy, flexibility, and availability**- traditionally not provided through school computers (DiMaggio and Hargittai, 2001, in Farlie R.W., 2012), and improve familiarity with software - which in turn enables them to use the computer with speed and effectiveness to complete academic work. Especially in fields where the use of computers is extensive - such as engineering, the use of computers compounds the educational returns by **enabling students to become industry-ready**. Additionally, the social distractions implicit in using a computer on campus, can make take home computers more effective (Farlie, R.W, 2012). On the other hand – regardless of location, provision of computers to students, can also act as a major source of distraction, with students utilizing these for social networking, gaming, and other forms of entertainment.

Another source of criticism - more andragogical in nature - is that **laptops may displace active and effective forms of learning**, by emphasizing graphics or presentation, over content (Giaquinto et al., 1993 in Farlie, R.W, 2012). Especially, with the rise of AI - the use of laptops in Education, may impede, rather than aid education outcomes, with the use of Generative AI tools to plagiarize, and solution for problems. This especially poses a threat with the hallucination's bias, and data privacy issues created by Generative AI (Ozer, M, 2024), including the reliance on non-credible sources of information.

The evidence in the relationship between take-home computers and educational outcomes is mixed. Some Randomized Control Trials conducted with school[42] students, where take home computers were provided to randomly assigned students - point to outcomes, which include enhanced proficiency in the use of laptops; however, show inversely correlated (!) or no gains in academic achievement or cognitive efforts, and reduced academic effort (Beuermann, Diether W et al, 2015). Studies also displayed that students provided with laptops, vis-à-vis those who had not, had a negative impact on grade progression: with lower on-time primary and secondary completion, no significant differences in university enrollment (Cueto S, et al, 2024). At the most, a study noted improvements in English Language performance scores for students in Colombia (Barrios Aguirre, F., 2021) attributed to the use of computers and internet connection. These outcomes are understandable at a school level; where much of educational learning happens through the textbook, a fixed syllabus, and does not necessarily require high utility of computers. Additionally, despite the difference in context - the findings emphasize displacement or unintended impacts of laptops when used for non-academic purposes.

[39] Angrist, Joshua, Daniel Lang, and Philip Oreopoulos. 2009. "Incentives and Services for College Achievement: Evidence from a Randomized Trial." *American Economic Journal: Applied Economics* 1 (1): 136–63.

[40] Ahmed, R., Ahmed, A., Barkat, W., & Ullah, R. (2022). Impact of Scholarships on Student Success: A Case Study of the University of Turbat, Pakistan. *The Pakistan Development Review*, *61*(2), 231–258. https://www.jstor.org/stable/2726-2044.

[41] https://files.eric.ed.gov/fulltext/ED545473.pdf

[42] There have not been extensive studies in the use of laptops in college education. As a result, studies quoted have been picked up from school-context, keeping in mind that – the risks and correlations drawn are as applicable to a university context, as much for school students.

However, when a similar RCT was replicated with community college students, there is some evidence that the use of computers may lead to small, yet positive and statistically significant impacts on better educational outcomes. **These positive effects have been attributed largely to the flexibility laptops provide to students for educational purposes**. The use of computers also enhanced ICT skills, allowing students to use technology more efficiently to complete work. Moreover - students living farther from campus were more likely to benefit from computers, than those living closer to location (Fairlie R.W, 2012). On the other hand - the use of laptops for non-educational outcomes, including gaming, social networking and entertainment were likely to dampen educational outcomes. Further research is needed to quantify the displacement effects caused by non-academic use of computers.

Table 17: Summary of Literature Review on Impact of Home Computers

#	Impact	Relationship
1	Computer Usage	Positive Relationship; coupled with Computer Efficiency
2	Computer Proficiency	Positive Relationship
3	English Language Learning	Mixed; Positive Relationship
4	Academic Progression & Effort	Negative
5	Academic Achievement	Positive relationship for university students. Positive Impacts on English Language Performance for non-native speakers. Non-academic use of computers may displace positive impacts.
6	Gaming, Social Networking, and Entertainment	These may have negative impacts; however, displacement effect is yet to be measured.

1.3. One on One mentorship

The Cummins India Nurturing Brilliance Scholarship also enrolls students in a mentorship program, where enrolled students are matched with senior leaders from Cummins - who volunteer to handhold students in a year long engagement. Attempt is made to match mentor and mentee based on similarities in gender, technical interests, mother-tongue, etc. Mentors enroll in a year long journey with their mentees, and hand hold them through a series of meetings on employability skills. In the first two years, mentors facilitated Basic Communication Skills, Time Management, IT, Personal Management, Planning & Organizing skills among students. Whereas, for students in their third and fourth years, mentors will focus on teamwork, critical thinking and problem solving, career guidance, creativity & innovation, corporate readiness etc. Students are also training in interview Skills and a final year project.

A meta-analysis of mentorship programs has revealed broadly four categories of outcomes for students: (a) **Attitudinal - resulting in fostering a sense of belonging and satisfaction** with a department, academic major etc., (b) **Behavioral outcomes - referring to behaviors such as retention in graduate programs**., (c) **career outcomes referring to career prospects** - including gaining admission to graduate school or to a job, and (d) **health & wellbeing outcomes** - **inclusive of psychological indicators, including stress and self-efficacy**[43]. As we speak of self-efficacy, it is important to highlight that as a measure, it reflects confidence in one's ability to 'exert control over one's own motivation, behavior, and social environment'[44].

Research examining the impacts of student mentorship programs with mentors from the industry revealed a positive impact on job-search self-efficacy, and reported **valuing career readiness support, networking, and**

[43] Assessment and Evaluation: What Can Be Measured in Mentorship, and How? - The Science of Effective Mentorship in STEMM - NCBI Bookshelf

[44] Carey, M. P., & Forsyth, A. D. (n.d.). *Teaching tip sheet: Self-efficacy*. American Psychological Association. https://www.apa.org/pi/aids/resources/education/self-efficacy

interviewing skills. Added to this - like the Cummins model, research[45] suggests that mapping same-sex mentors - particularly female students with female mentors led to enhanced mentorship outcomes associated with significant improvements in psychological experiences in engineering, emotional well-being, their retention in STEM majors, and success in securing engineering internships. Research has shown that same-sex mentoring, particularly for females - may be effective, due to the differences in gendered lived experiences, thus impacting the guidance and advice offered by their mentors. Moreover - same sex mentor and mentees can mitigate the risk of gender power dynamics influencing mentor-mentee relationships and structural inequalities (Lin, G et.al[46], and Hamer D.H[47] et al, in Asim, H. et al, 2023)[48]. However, there is emerging evidence that **a successful mentoring relationship may be centered around youth interests, and perceived similarities, rather than just demographic similarities**[49].

Especially - with effective instructors, i.e. in this case **mentors, and teachers - may help develop high levels of self-efficacy and motivation among students towards their careers**. When such instructors emphasize the importance of developing soft skill competencies in and beyond the classroom - findings suggest a direct and positive effect on soft skills development - vital to student career success. The effectiveness of instructors may be broadly interpreted through the lens of the quality of mentorship itself. In the context of students of the applied sciences, factors such as **trust and availability, emotional support, networking support, autonomy support, similarity, and empathy**, are found to have implications on whether mentoring relationships qualified as successful or not[50] (Nuis, W. et al, 2024).

Table 18: Summary of Literature of Impacts of Mentorship Programs on Students

#	Impact	Relationship
1	Cultivating a Sense of Belonging	Positive Relationship; however - these were mostly in Peer-to-Peer Mentorship Programs
2	Retention in STEM Degrees	Positive Relationship
3	Enhanced Career Self-Efficacy, Career Motivation / Reducing Stress	Positive Relationship
4	Securing Internship Opportunities / Career Readiness	Positive Relationship
5	Soft Skill Development	Positive Relationship, often mediated through enhanced self-efficacy & career motivation among students.

[45] A longitudinal RCT was used to track outcomes of university students in STEM, where female students were randomly assigned a female peer mentor, male peer mentor, and not assigned a mentor.

[46] 7.Lin G., Murase J. E., Murrell D. F., Godoy L. D. C., and Grant-Kels J. M., "The impact of gender in mentor–mentee success: Results from the Women's Dermatologic Society Mentorship Survey," *Int. J. Women's Dermatology*, vol. 7, no. 4, pp. 398–402, 2021, doi: 10.1016/j.ijwd.2021.04.010 [DOI] [PMC free article] [PubMed] [Google Scholar]

[47] Hamer D. H. et al. , "Global health research mentoring competencies for individuals and institutions in low-and middle-income countries," *Am. J. Trop. Med. Hyg.*, vol. 100, no. Suppl 1, pp. 15–19, 2019, doi: 10.4269/ajtmh.18-0558 [DOI] [PMC free article] [PubMed] [Google Scholar]

[48] Asim, M., Gatheru, P. M., Chebet, J. J., Shah, M. G., Thorson, A., & Brizuela, V. (2023). Support, networks, and relationships: Findings from a mixed-methods evaluation of a mentorship programme for early career women researchers in sexual and reproductive health and rights. *PloS one*, *18*(12), e0295577. https://doi.org/10.1371/journal.pone.0295577

[49] Hernandez, P. R., Estrada, M., Woodcock, A., & Schultz, P. W. (2016). Protégé Perceptions of High Mentorship Quality Depend on Shared Values More Than on Demographic Match. *The Journal of Experimental Education*, *85*(3), 450–468. https://doi.org/10.1080/00220973.2016.1246405

[50] Nuis, W., Segers, M. & Beausaert, S. Measuring mentoring in employability-oriented higher education programs: scale development and validation. *High Educ* **87**, 899–921 (2024). https://doi.org/10.1007/s10734-023-01042-8

Thank you