University of South Florida

HOW COMMUNITY COLLEGE TRANSFER S-STEM SCHOLARS IN ENGINEERING SPEND SCHOLARSHIP FUNDS TO ENHANCE THEIR ACADEMIC SUCCESS

TURNPIKE
NSF SCHOLARSHIPS IN STEM

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INTRODUCTION

Study Focus:

- Impact of NSF Scholarships in STEM (S-STEM) program on community college transfer students pursuing engineering degrees
- Research supported by the **Community College S-STEM Network (CCSN)**

TURNPIKE Project - Transfer Undergraduate Rural/Nontraditional Student Pathways through Identity, Knowledge & Engagement

- Partnership between Polk State College (PSC) and University of South Florida (USF) Engineering
- Supports rural, non-traditional, and underrepresented minority (URM) students

Goals:

- Foster equity in engineering education
- Aligns with national goals of enhancing STEM education
- Supports retention and graduation of high-achieving students with financial needs

PURPOSE

This paper explores how community college transfers utilize scholarship toward overcoming financial challenges they believe would otherwise stunt their progress toward an engineering bachelor's degree.

Research Questions

a. How do S-STEM scholarships allow low-income community college transfer engineering students to prepare for success at a four-year university?

b. How do S-STEM scholarships contribute to the work-life-school balance of low-income community college transfer engineering students?

LITERATURE REVIEW

Challenges for CC Transfer Students

- Financial instability impacts graduation rates

Financial Barriers:

- Many students work full-time and seek financial aid

Impact on Education:

- Financial barriers hinder performance and retention

Benefits of S-STEM:

- Up to $10,000 per year to underrepresented students transitioning from CC to STEM degrees at selected four-year institutions

Research Gap

How do CC transfer students use S-STEM grants to support their education?

METHODS

Qualitative Methods
23 in-depth interviews and four focus groups with 16 total students

Data Collection
Investigated personal and educational backgrounds, decisions to major in engineering, transition from community college to USF, and effects of the S-STEM scholarship

Data Analysis
Recorded data was transcribed using Rev and analyzed with Atlas.ti technology

DATA ANALYSIS

Four themes:

a. Optimizing Work-School-Life Balance

b. Financial Safety Net

c. Reducing Commuting Costs

d. Family Medical and Financial Emergencies

WORK-SCHOOL-LIFE-BALANCE

Employment Challenges: **“[I]f you’re working 30 hours, 40 hours, don’t be crazy and try to take 12 credits. It’s just not going to happen. It’s physically impossible.**

Reducing Work Hours: **“I work part-time. Thanks to the scholarship that I get for S-STEM, I don’t have to work as much anymore, so I usually do 20 hours a week or sometimes even less… I have a lot of time to study.”**

FINANCIAL SAFETY NET

Discretionary Funds: **“A lot of that money goes straight into my bank account, which could be used for utilities, essentials, bills, what not, stuff that I actually need to buy, and even books in the future.”**

Educational Backup: **“I had a financial aid but now I’m running out of the money for financial aid. So, I was thinking [S-STEM] is going to help me finish my degree.”**

FINANCIAL SAFETY NET

Access to Savings: **“I save most of the money sometimes when I don’t use it. I don’t tend to spend it on things that I don’t need.”**

Unexpected Costs: **“[S-STEM gives me] some money to fall back on if something does hit the fan.”**

REDUCING COMMUTING COSTS

Gas and Vehicle Maintenance: **“That’s very helpful to have that money to pay off the gas. It’s also, I think I have a car repair thing I need to.”**

Moving On-Campus: **"...After I received the scholarships, I can find an apartment next to the campus and feel more engaged with school life.”**

FAMILY EMERGENCIES

Financial Instability: **“I’m a 4.0 student. And there’s a reason why. Because I did not come from financial stability growing up. And so, I had to figure out what is the best way for me to be able to get myself into a place that will bring my future and my family’s future better.”**

NEXT STEPS

Forthcoming Paper Topics:

How S-STEM Scholarships Factor Into Decision-Making

Social Impacts of S-STEM Scholarship

Engineering Identity and Academic and Personal Growth