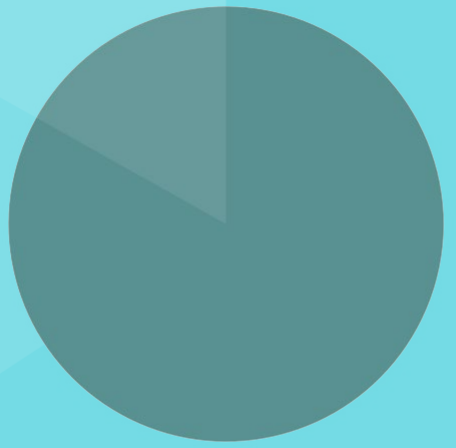
Employment Influences on Community College Students' Academic Success



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Introduction

- Research Question: Does employment influence community college students' academic success?
  - Many community college students work while enrolled, our team wanted to know if employment affected academic success.
- Operationally defined academic success by the following components: GPA, Self-Efficacy, and Grit.
- Does employment influence community college student academic progress?
  - How do hours worked affect GPA?
  - How do hours worked affect Self-Efficacy score?
  - How do hours worked affect Grit score?

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Literature Review

- 47% of full-time community college students are employed compared to 38% of full-time students at 4-year institutions (National Center for Education Statistics, 2022)

- Full-time students working part-time between 10-19 hours per week:
  - spent more time studying
  - had a higher GPA
  - may be linked to higher discipline and value in education
  - 74% of student-workers credit their job in allowing them to become more efficient (Dundes, L., & Marx, J, 2007)

- Moderate increases of (1-10) hours worked have small negative effects on GPA, but may have had positive effects on credits earned. (Dagdar, M., 2012)

Hypotheses

- Does employment influence community college students' academic progress (GPA, Academic Self-Efficacy, and Grit)?

  GPA

  - H_0 = There is no difference between hours worked and GPA.
  - H_1= There is a difference between hours worked and GPA.

  Academic Self-Efficacy Score

  - H_0 = There is no difference between hours worked and Academic Self-Efficacy score.
  - H_1= There is a difference between hours worked and Academic Self-Efficacy score.

  Grit Score

  - H_0 = There is no difference between hours worked and Grit score.
  - H_1= There is a difference between hours worked and Grit score.

Methodology

- Online survey design with nonequivalent groups
- Psi Beta National Research Project
- IRB approval was granted from both National Psi Beta Research Team and Tri-C
- Participant selection and recruitment:
    - Tri-C's Evidence & Inquiry department emailed 5,000 randomly selected students
    - Psi Beta students held a 2-hour table event at Tri-C West
    - Interested faculty members shared the survey with students
- A one-way ANOVA was used to test our predictor variable: hours worked
- Our outcome variables: GPA, Academic Self-Efficacy Score, and Grit Score

Descriptive Statistics: Demographics

- Sample size (n = 110) community college students from Tri-C
  - After removing those who didn't reply to all variables, n = 90
- Age (M = 25)
- Gender identity
  - Female (n = 75; 68.2%)
  - Male (n = 25; 22.7%)
  - Non-binary (n = 7; 6.4%)
  - Other (n = 1; 0.9%)
  - Prefer not to answer (n = 1; 0.9%)
  - Not reported (n = 1; 0.9%)
- Racial minority self-report
  - No (n = 74; 67.2%)
  - Yes (n = 25; 22.7%)
  - Prefer not to answer (n = 9; 8.2%)
  - Not reported (n = 2; 1.8%)

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Descriptive Statistics: Measures

- **GPA =** Self-reported: a scale was not used.
  - *M* = 3.23, *SD* = 0.65

- **Academic Self-Efficacy =** Students' confidence in their potential to attain goals academically.
  - 11-item subscale from the Children's Multidimensional Self-Efficacy Scales (Bandura, 1989, as cited in Zimmerman et al., 1992).
  - Self report on 7-point Likert scale.
  - *M* = 5.03, *SD* = 1.13

- **Grit =** A student's drive and determination while going after long-term goals
  - 8-item Short Grit Scale, measured on a 5-point Likert scale (Duckworth & Quinn, 2009)
  - *M* = 3.21, *SD* = 0.66

Results Summary

Table 1

Test for ANOVA Assumptions.

	Variable	Assumption Met	Assumption Not Met	*p-value*
Shapiro-Wilk Test for Normality	GPA		X	< 0.001*
	Academic Self-Efficacy		X	0.024*
	Grit	X		0.495
Levene's Test for Equality of Variance	GPA	X		0.145
	Academic Self-Efficacy	X		0.321
	Grit	X		0.121

**Significant at p < 0.05*

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Results

Data analysis techniques used:

- One-Way ANOVA
  - Grit = no difference between groups: F (2, 106) = 3.03, p = *.053,* η^2 = .054
  - Academic Self-Efficacy = F (2, 104) = 4.67, p = *.011,* η^2 = .082
    - Difference was between those who work at least 20 hrs and those who work 20+ hours
    - 20+ hrs had higher self-efficacy (Tukey's HSD = -.793, p = *.008*)
  - GPA = F (2, 89) = 4.81, p = *.010,* η^2 = .098
    - Difference was between those who work 20+ hours and those who do not work
    - Those who don't work reported higher GPA (Tukey's HSD = .453, p = *.008*)

- Normality was violated for Academic Self-Efficacy & GPA:
  - Non parametric test Kruskal-Wallis independent samples nonparametric test.
  - Academic Self-Efficacy: H(2) = 8.51, p = *.014*
  - GPA: H(2) = 11.75, p = *.003*

Discussion & Limitations

Our data analysis showed that there were statistical differences in GPA and Academic Self-Efficacy by hours worked, while Grit was not affected.

- Students who did not work reported the highest GPA.
- Students who worked > 20 hours per week showed the highest Academic Self-Efficacy scores but the lowest GPA scores.

Future directions:

- Study other measures such as sense of purpose and meaning, subjective happiness, loneliness, and belongingness as they align with our topic of study.

Limitations:

- Our literature review showed our topic to be under-researched.
- GPA was self-reported making chance for error higher.
- Self-reported data may be biased based on social acceptability.

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Q & A

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