

# IMPACT OF STUDY ABROAD ON PARTICIPATING STUDENTS' GPA, HOURS EARNED, BUDGET & LOAN.

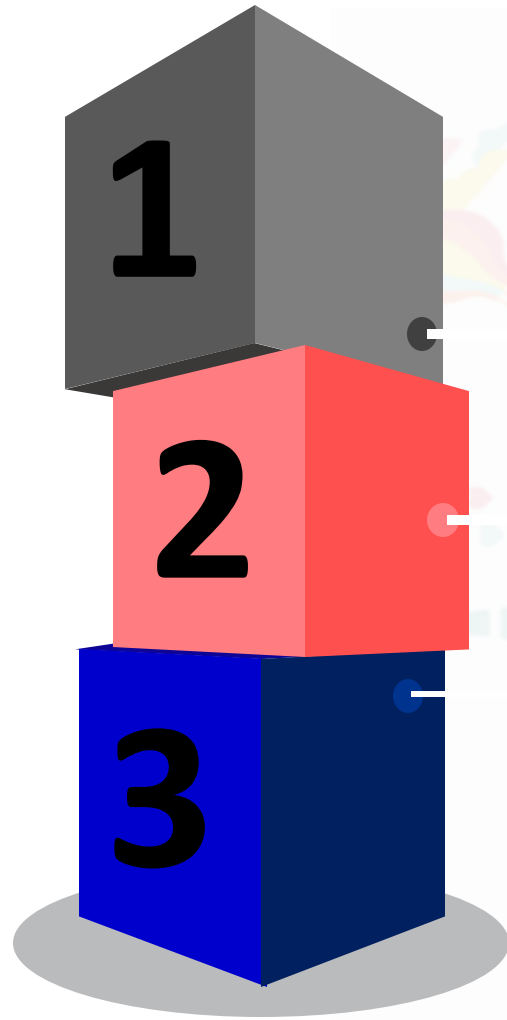


**NDUBUISI NEZIANYA**

***Masters Informatics and Analytics***



# AGENDA



**Introduction to Analysis**

**Data Deep Dive & Insights**

**Limitations & Next Steps**

# STUDY ABROAD & STUDENTS

Study abroad provides an opportunity for college students to study in a foreign country. Students attend lectures or carry out research at a foreign university or through their home university's study-abroad program.

## Benefits of Study Abroad:

- Participants experience new places and cultures
- Participants make friends from around the world
- Allows participants to develop highly-valued skills such as intercultural communication, foreign languages, adaptability, and problem-solving.
- Participants gain a global perspective—while earning credits towards their degree

A paper published by the US Department of Education, lists Study Abroad as one of the High Impact Educational Practice. <https://files.eric.ed.gov/fulltext/EJ1062114.pdf>

# STUDY ABROAD & UNCG

The Study Abroad program in UNCG is coordinated by the International Program Center (IPC) of the University. This International Program Center is being led by Dr. Maria Anastasiou.

The UNCG study abroad office helps participants :

- Explore programs that fit into their majors
- Identify partnering universities that offer the programs that participants are interested in.
- Resources for funding study abroad program
- Safety & Well being of participants while studying abroad
- Ensuring that participants earned credit counts towards their degree.



**DATA DEEP DIVE & INSIGHTS**

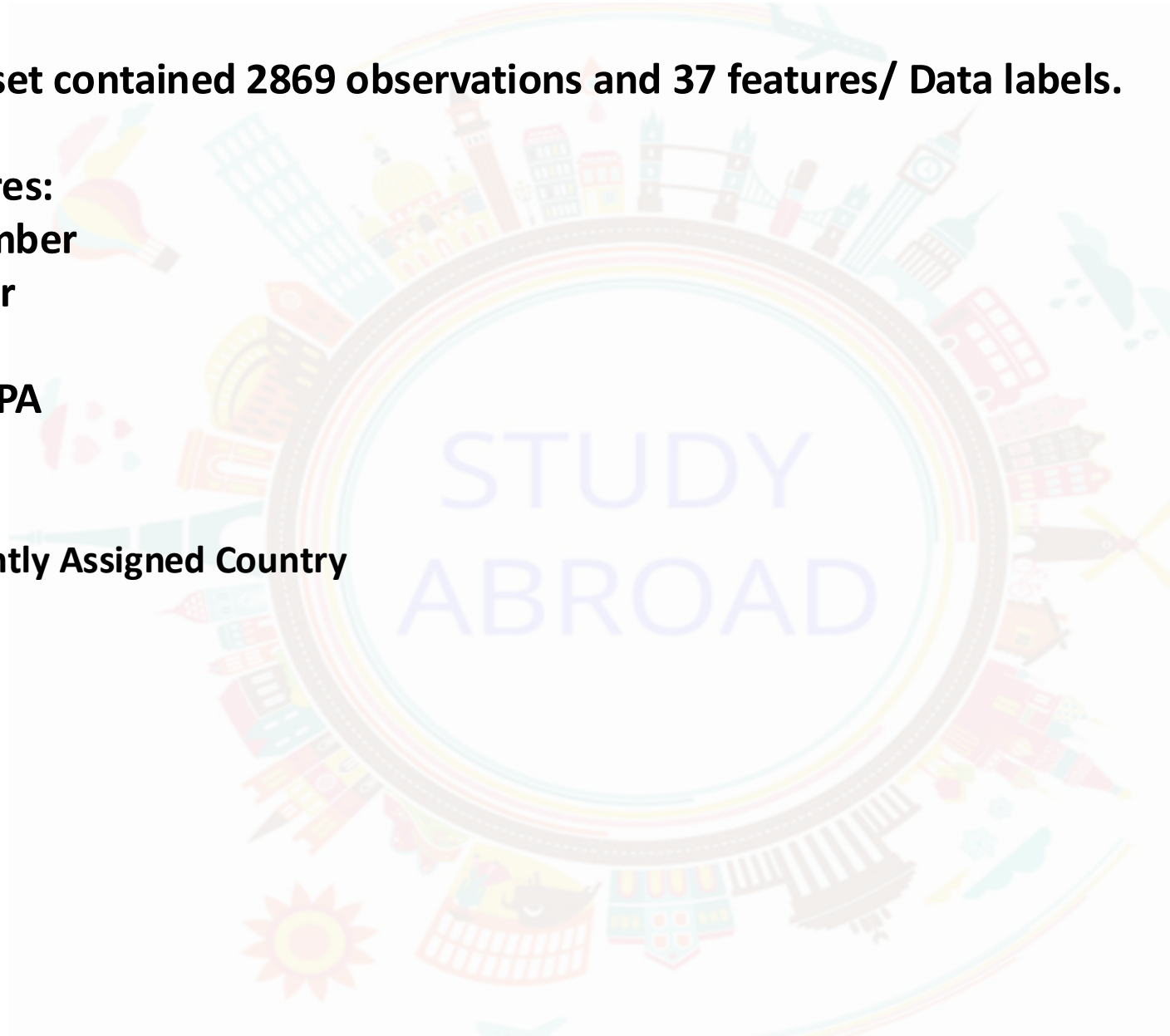


# ABOUT THE DATASET

- Original Dataset contained 2869 observations and 37 features/ Data labels.

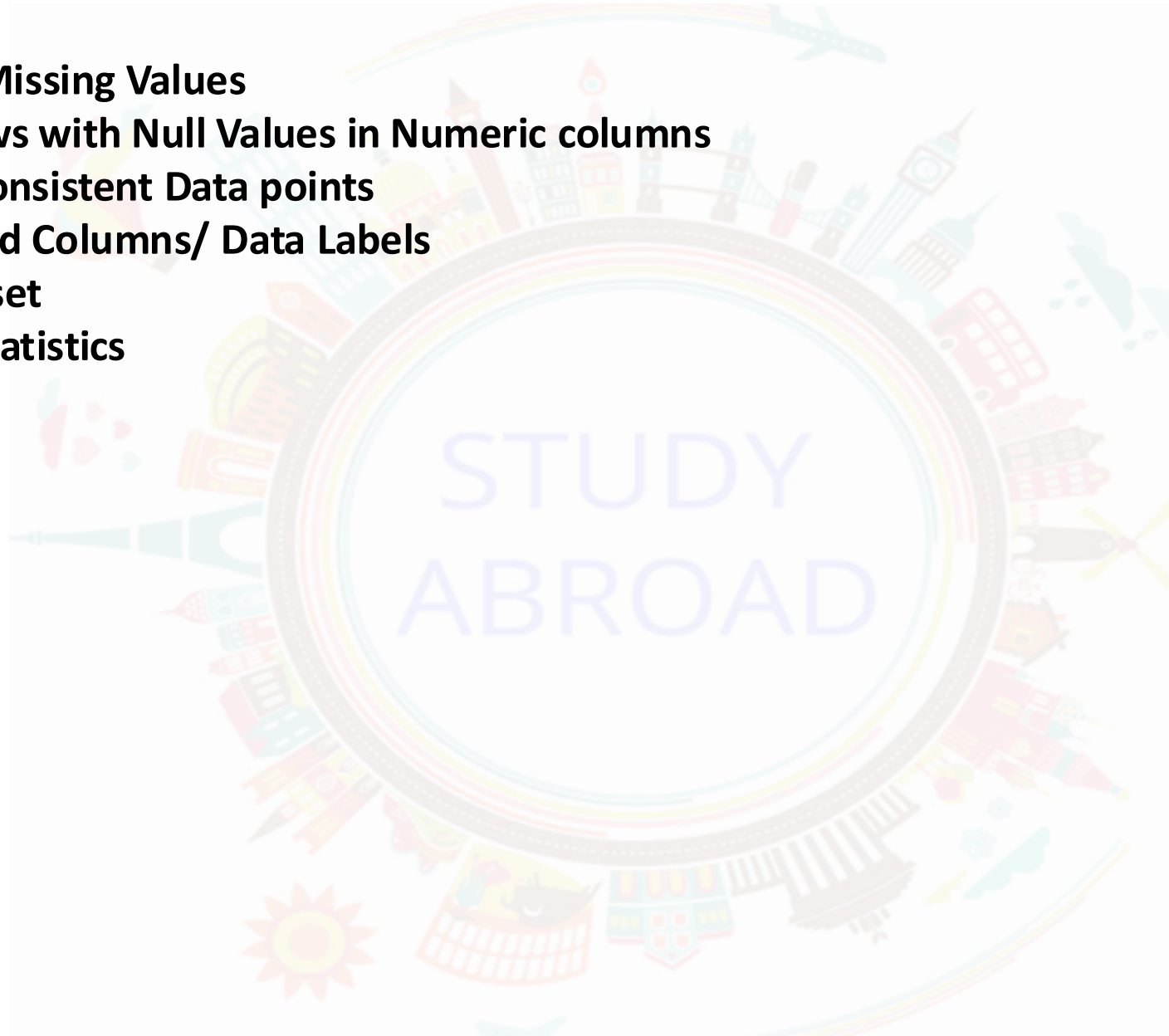
## Important Features:

- UNCG ID Number
- Academic Year
- Program Type
- Cumulative GPA
- GPA
- Graduation
- Program Currently Assigned Country
- Pell Eligibility
- College
- First Major
- Ethnic Origin



## DATA CLEANING & PRE-PROCESSING

- **Checked for Missing Values**
- **Removed Rows with Null Values in Numeric columns**
- **Removed Inconsistent Data points**
- **Added Derived Columns/ Data Labels**
- **Merged Dataset**
- **Descriptive Statistics**

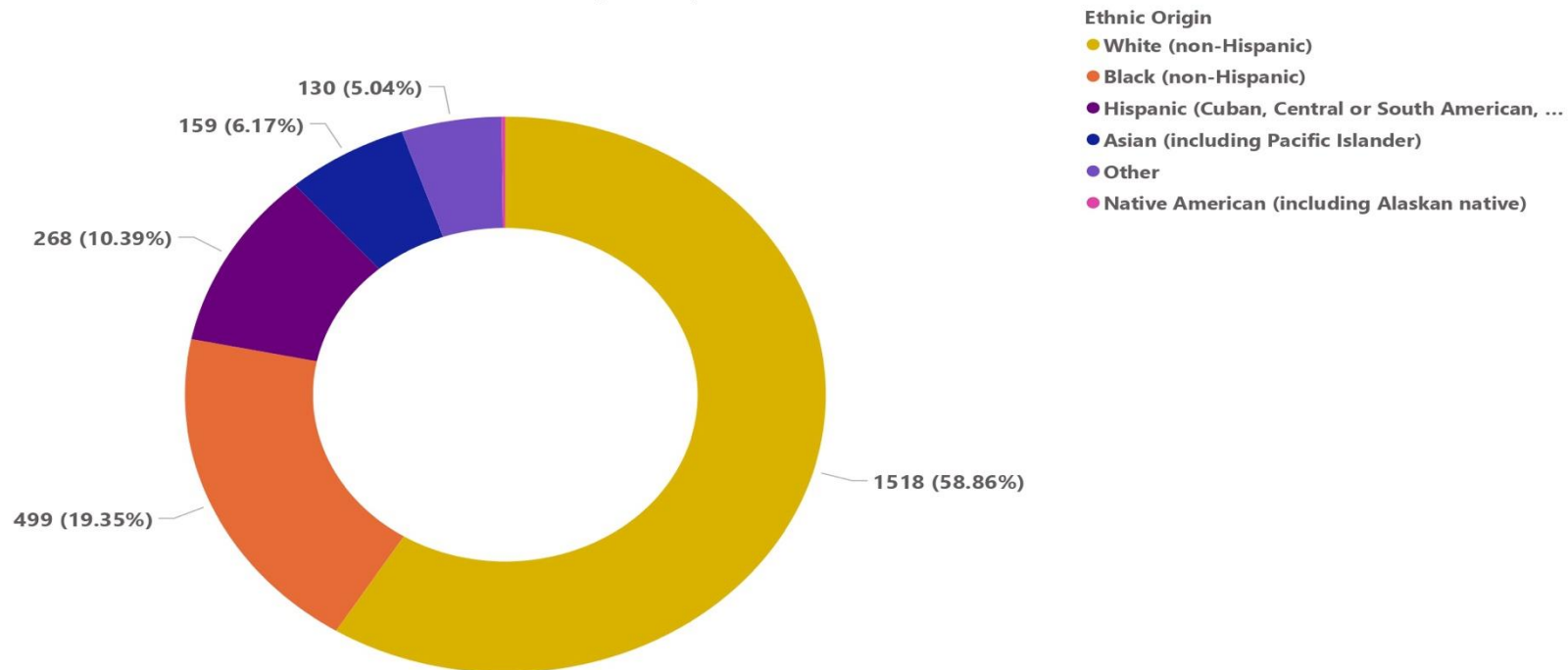


# DEMOGRAPHICS OF PARTICIPANTS

**36%**

Percentage of Minority Students

Total Number of Students Who Studied Abroad Between 2014–2022 by Ethnicity

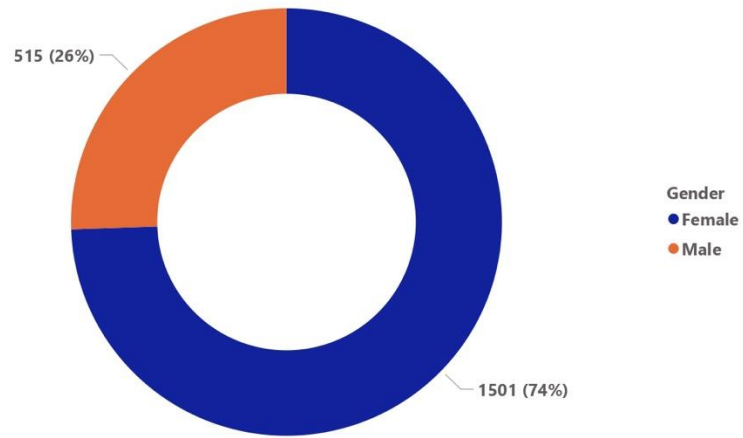


- The Average EFC(Estimated Family Contribution) for White participants is 14,000 which is higher than that of other ethnicity represented in the data.

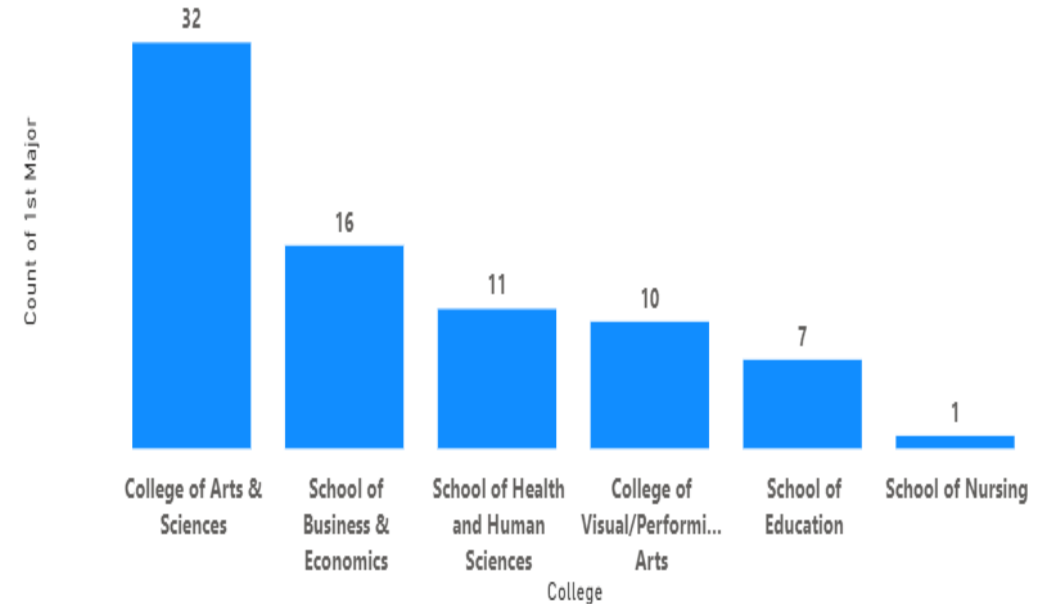


# DEMOGRAPHICS OF PARTICIPANTS

Total Number of Students who studied Abroad Between 2014-2022 by Gender



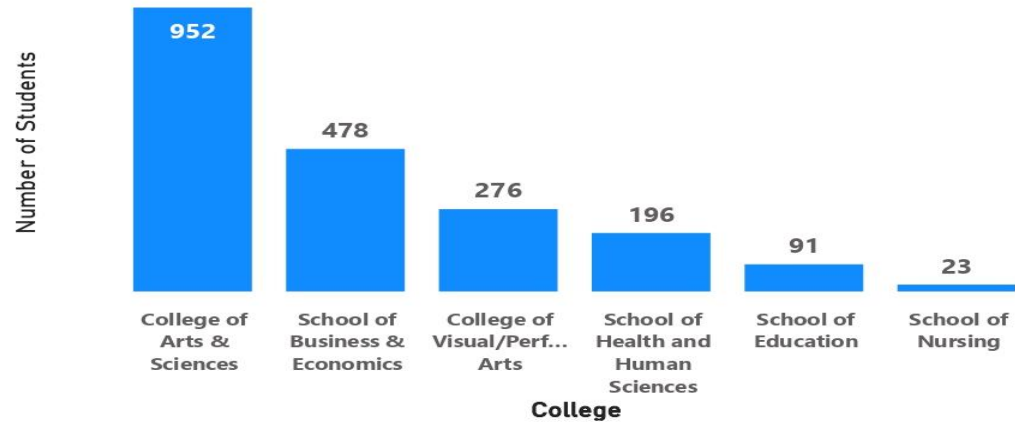
Number of Majors By Colleges



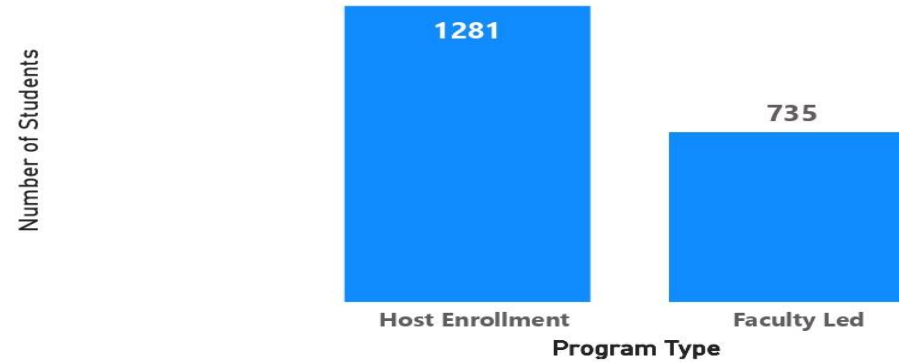
- On Average the Female participants graduate with 0.15 GPA points higher than Male participants

# PARTICIPANTS BY COLLEGE, MAJOR & PROGRAM TYPE

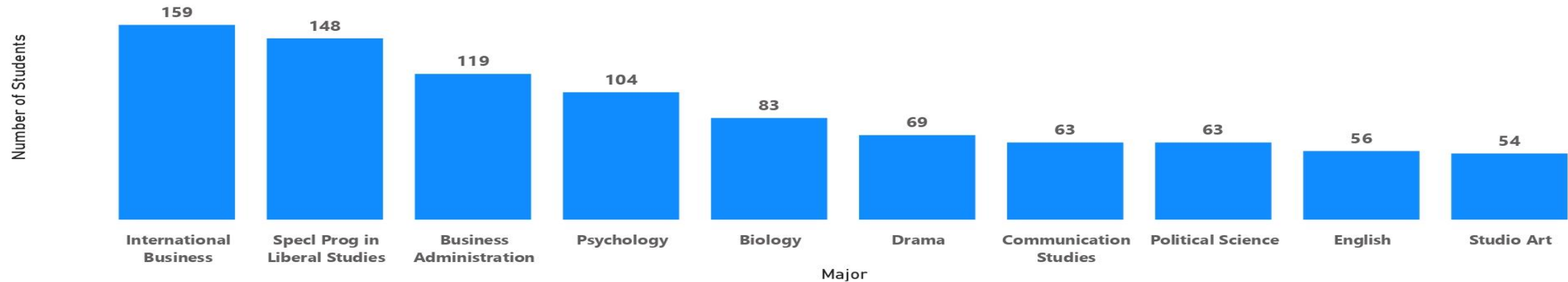
Total Number of Students Who Studied Abroad Between 2014- 2022 by College



Total Number of students Who Studied Abroad Between 2014-2022 by Program Type



Top 10 Majors of Students Who studied Abroad between 2014-2022



# PARTICIPANTS BY COLLEGE, MAJOR & PROGRAM TYPE

**35%**

Percentage of PELL Eligible Students

Number of Students Who studied Abroad Between 2014-2022 & Percentage of Pell Eligible Students

● Number of Students ● Percentage of Pell Eligible Students

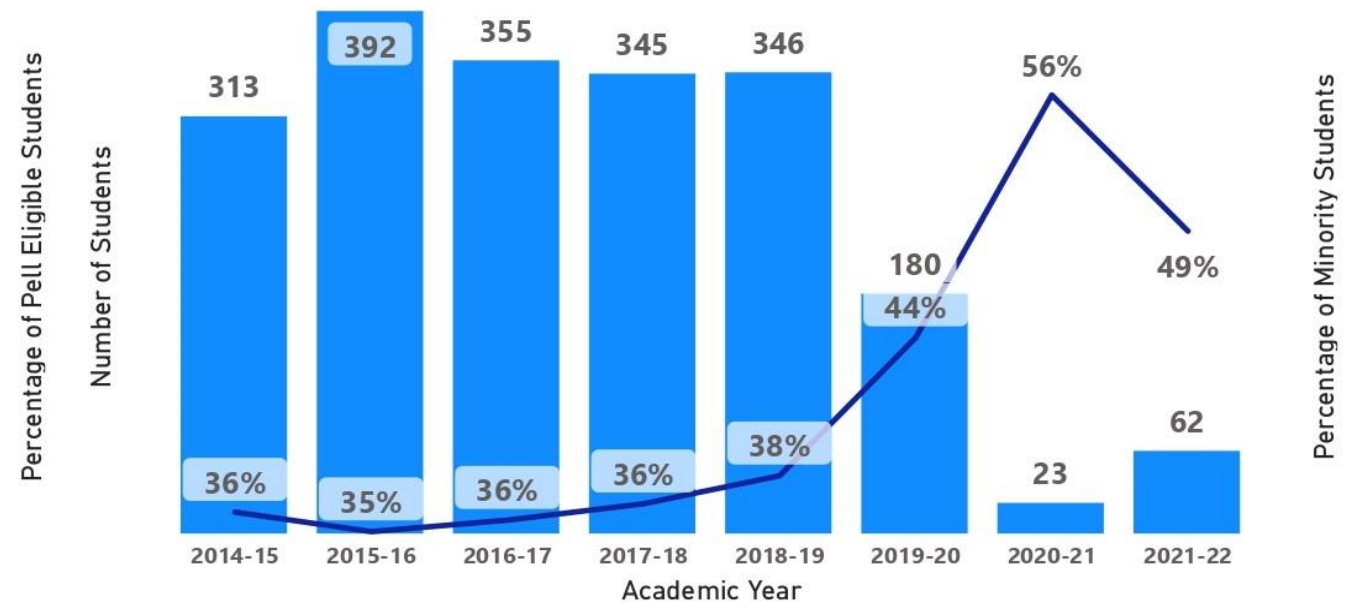


**2020-21 Academic Year**

Highest Number of Minority Participants

Number of Students Who Studied Abroad Between 2014-2022 & Percentage of Minority Students

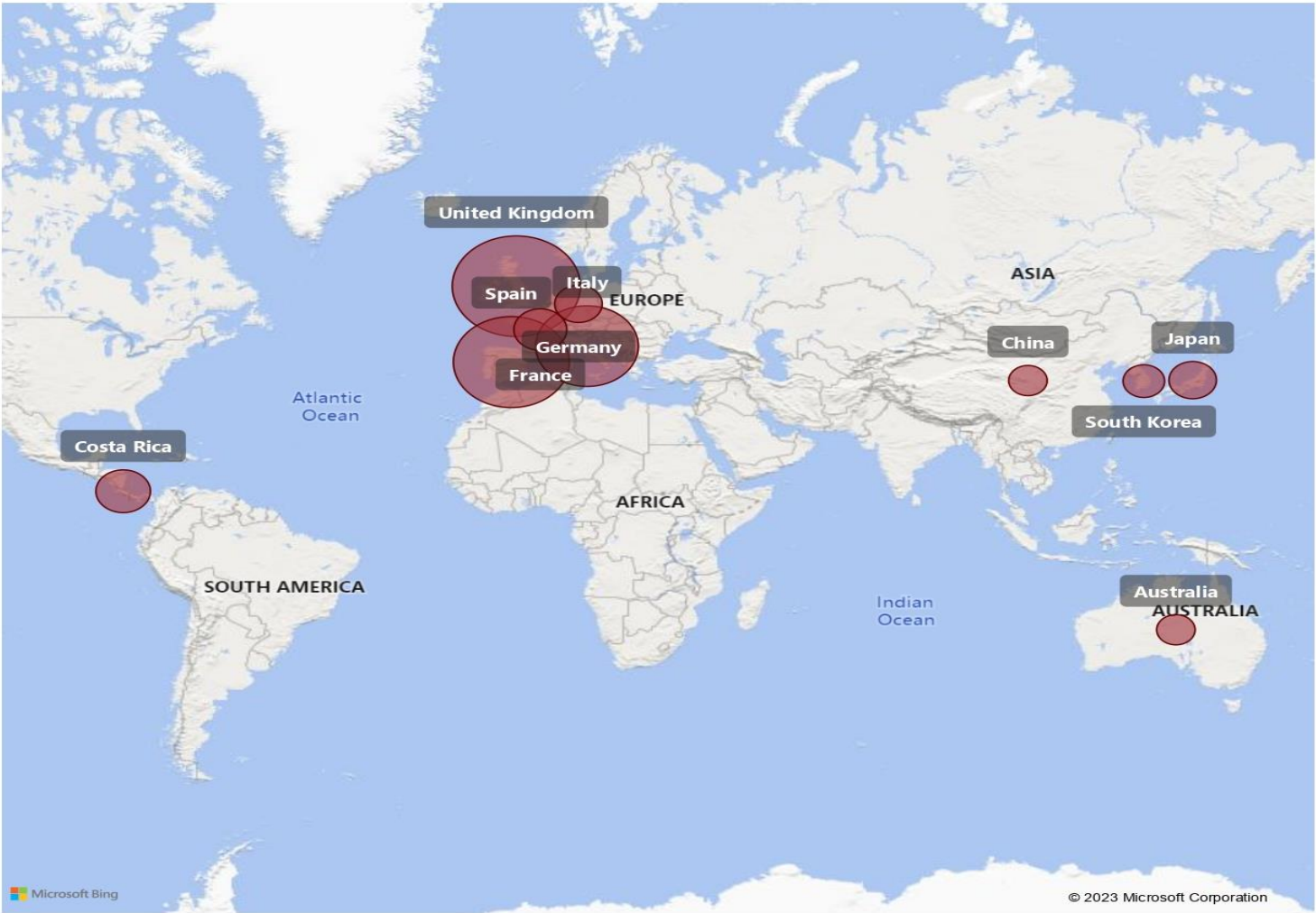
● Number of Students ● Percentage of Minority Students



➤ Of the 23 students that studied Abroad in 2020-21 Academic Year, 13 were from Minority Ethnicity.

# TOP 10 STUDY ABROAD DESTINATIONS

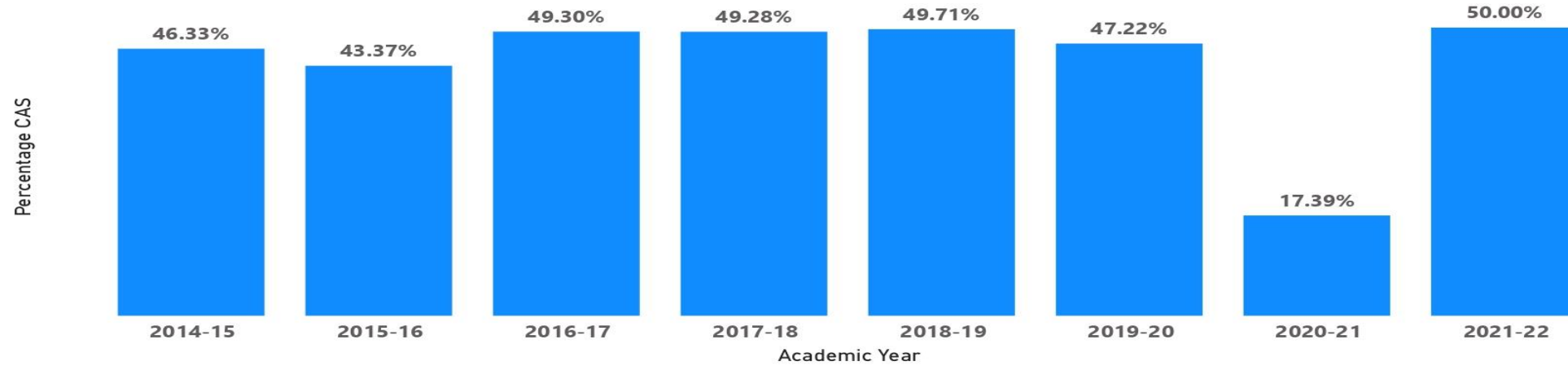
Top 10 Study Abroad Locations Between 2014-2022



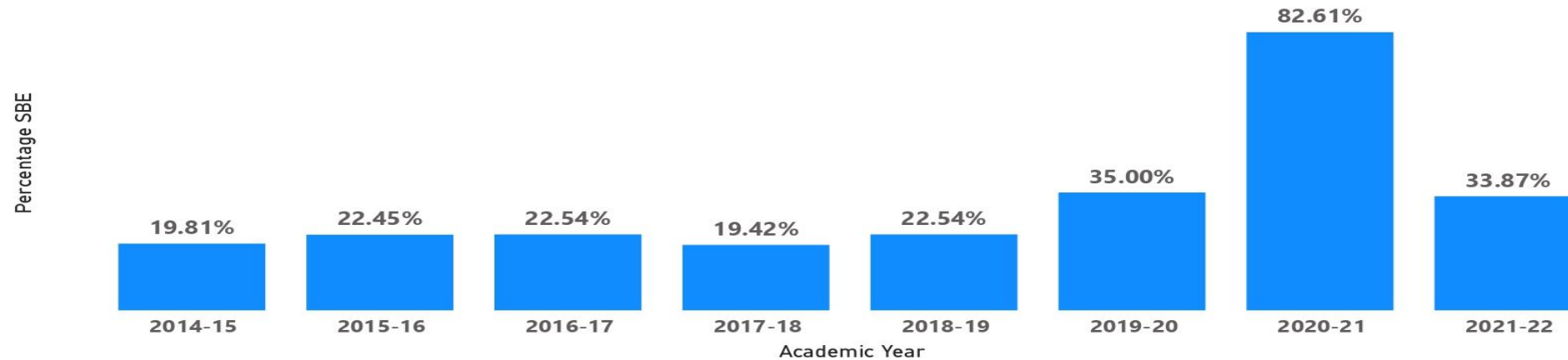
Country	Count of Students
United Kingdom	290
Spain	259
Italy	225
United States;Belgium	110
Costa Rica	102
France	98
Germany	84
Japan	84
South Korea	69
Australia	61
China	61
Total	1443

# PERCENTAGE PARTICIPANTS BY COLLEGE

Percentage of Students From College of Arts&Science who Studied Abroad by Academic Year



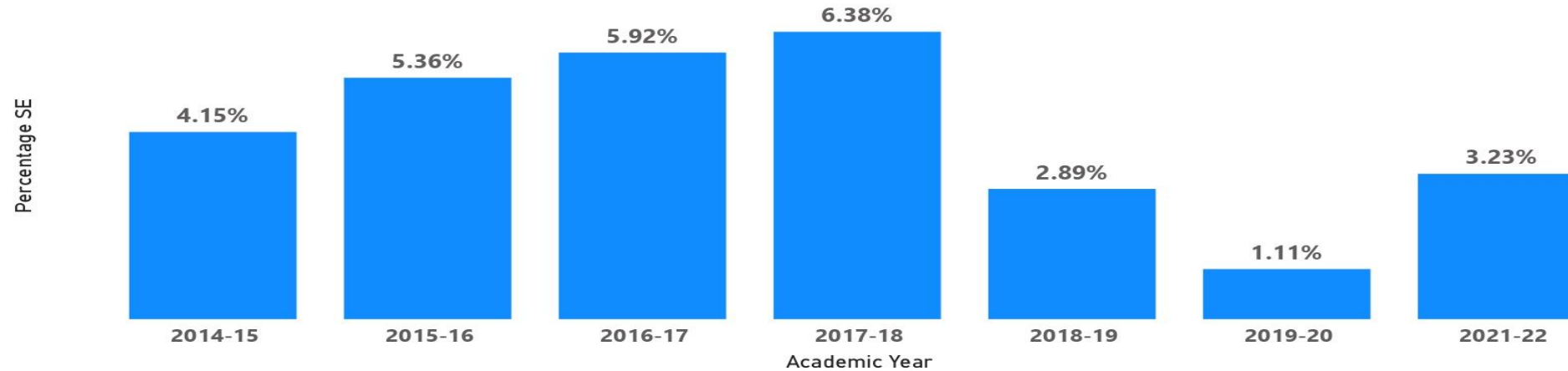
Percentage of Students From School of Business & Economics who studied Abroad by Academic Year



- More Students from the College of Arts & Science engage in Host Enrollments Programs than Faculty Led programs. While School of Business & Economics more Faculty Led enrollments

# PERCENTAGE PARTICIPANTS BY COLLEGE

Percentage of Students From School of Education Who Studied Abroad by Academic Year



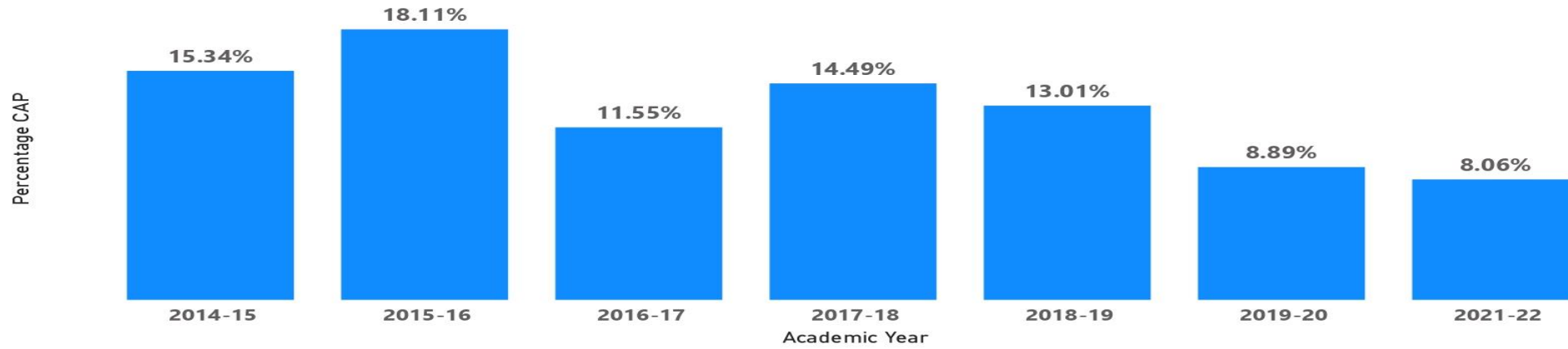
Percentage of School of Health and Humanities who studied Abroad by Academic Year



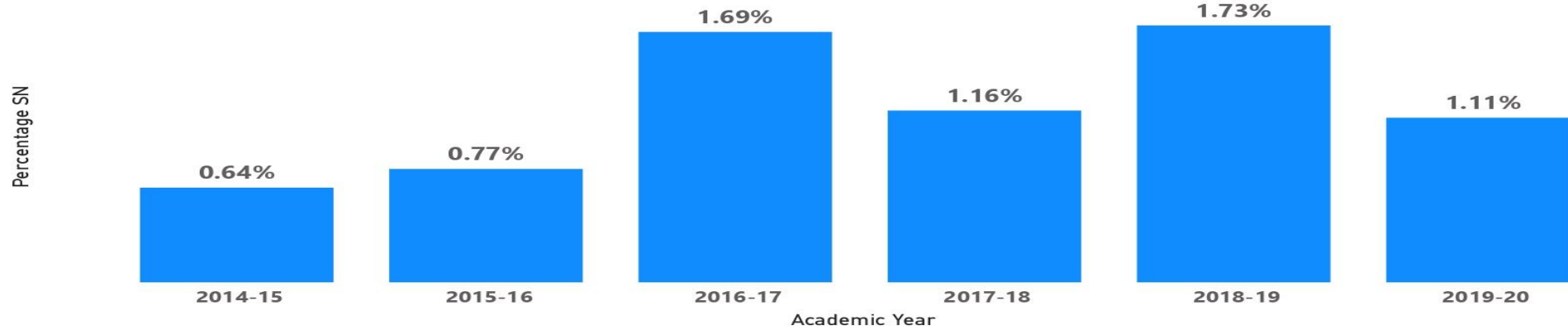


# PERCENTAGE PARTICIPANTS BY COLLEGE

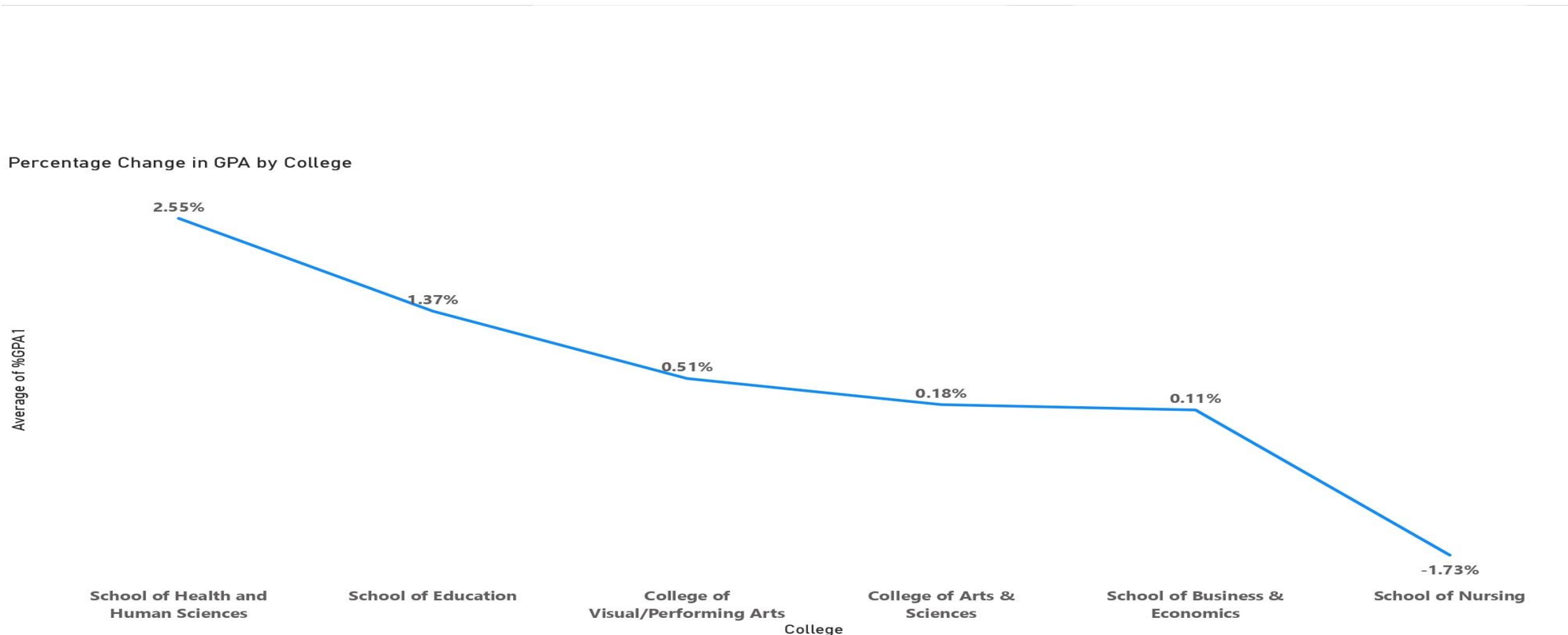
Percentage of Students From College of Visual & Performing Arts Who Studied Abroad by Academic Year



Percentage of Students From School of Nursing Who Studied Abroad by Academic Year



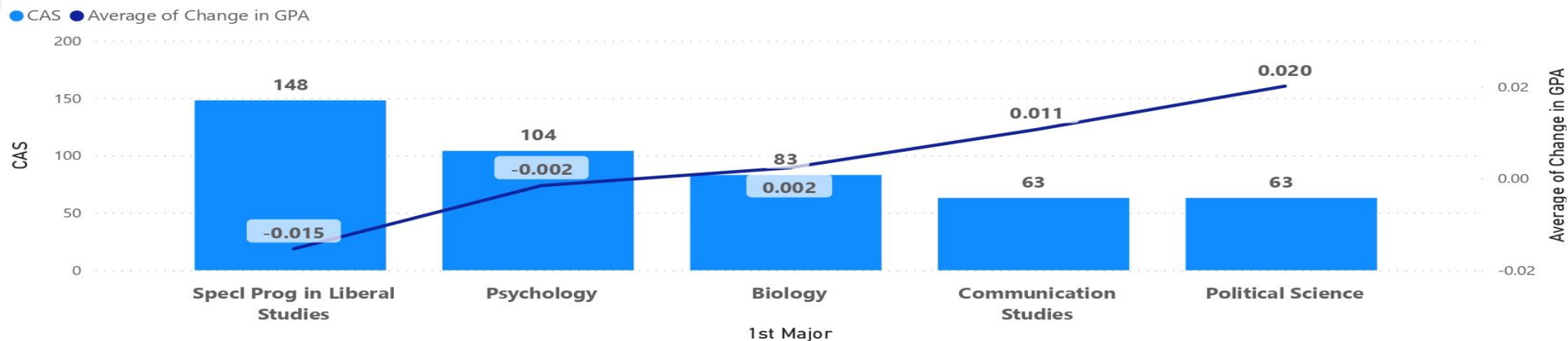
# PERCENTAGE CHANGE IN GPA BY COLLEGE



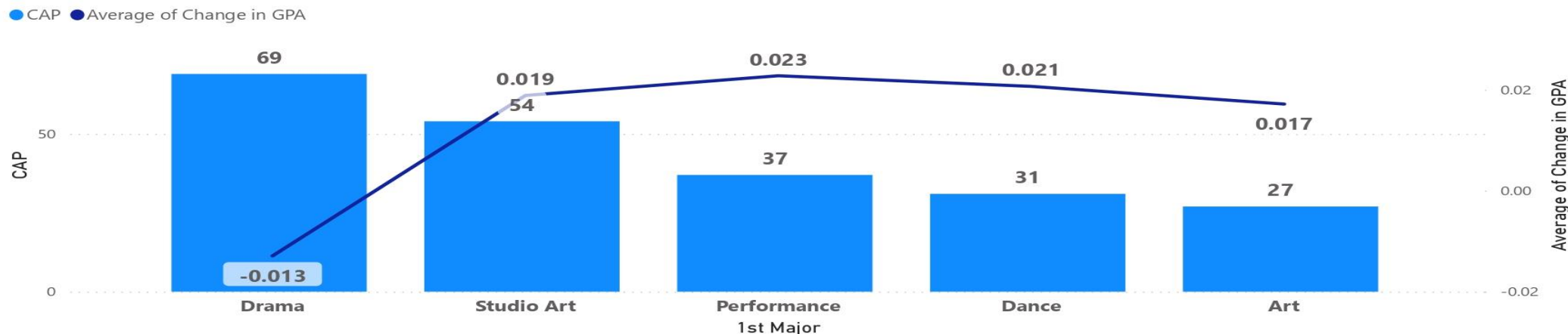
At 2.55%, School of Health and Human Sciences had the highest Average of %GPA1 and was 247.41% higher than School of Nursing, which had the lowest Average of %GPA1 at -1.73%. Across all 6 College, Average of %GPA1 ranged from -1.73% to 2.55%.

# AVERAGE CHANGE IN GPA FOR TOP 5 MAJORS

Top 5 Majors in College of Arts & Science with Change in GPA



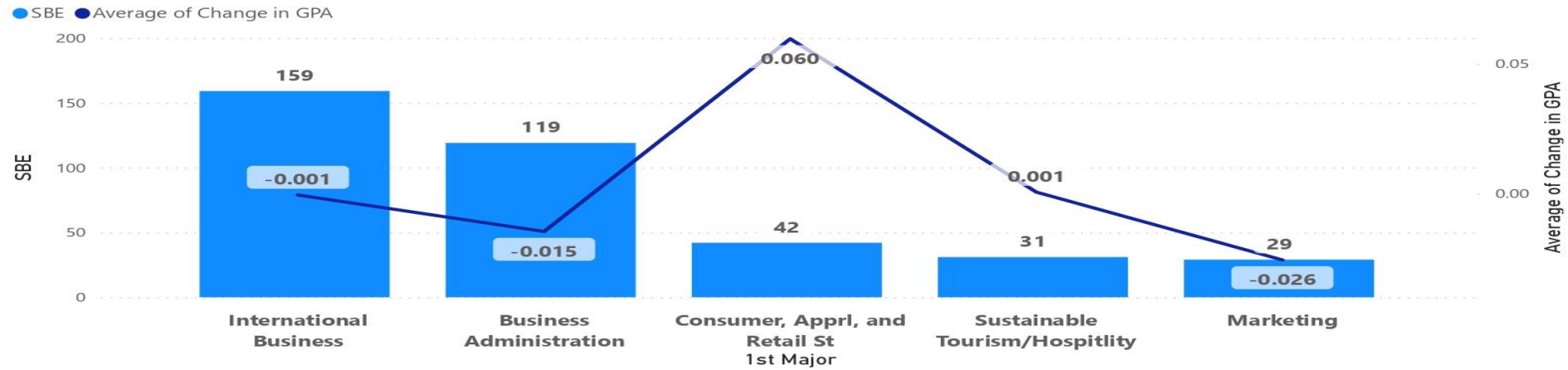
Top 5 Majors in College of Visual & Performing Arts with Change in GPA



- The Average Change in GPA shows the mean of the Difference between GPA when applying for Study Abroad and GPA at graduation across the Top 5 Majors for each College.

# AVERAGE CHANGE IN GPA FOR TOP 5 MAJORS

Top 5 Majors in School of Business & Economics with Change in GPA



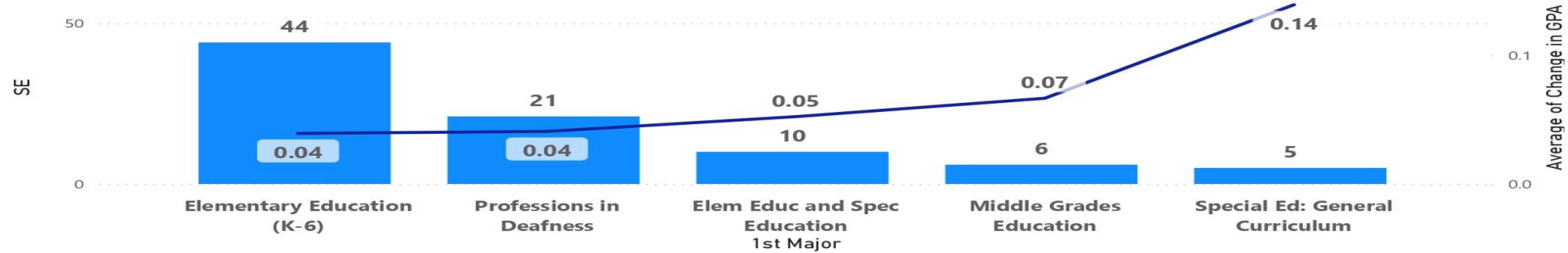
School of Nursing with Change in GPA



# AVERAGE CHANGE IN GPA FOR TOP 5 MAJORS

Top 5 Majors in School of Education with Change in GPA

SE ● Average of Change in GPA



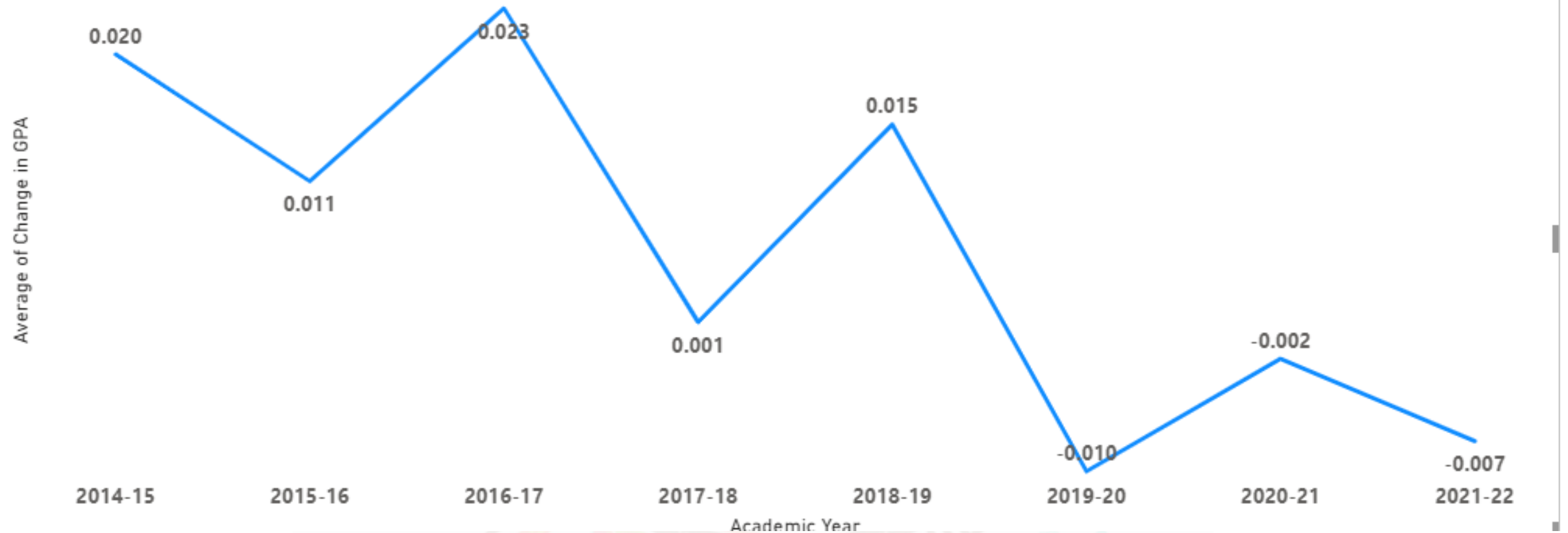
Top 5 Majors in School of Health & Humanities with Change in GPA

SHH ● Average of Change in GPA



# AVERAGE CHANGE IN GPA BY ACADEMIC YEAR

Average Change in GPA by Academic Year



- The Average Change in GPA shows the mean difference between GPA when applying for Study Abroad and GPA at graduation across the academic years in the dataset.



# HOURS ATTEMPTED VS HOURS EARNED

**145**

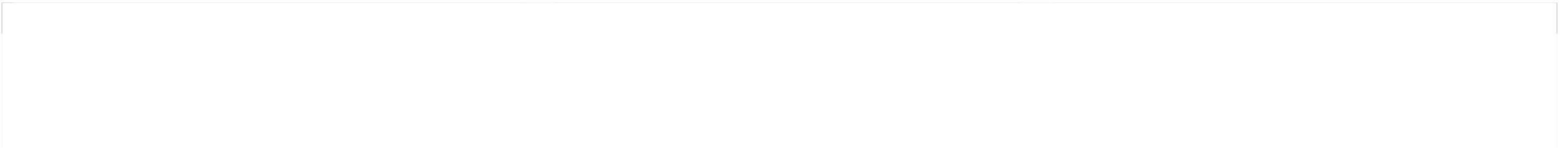
**Average Hours Attempted**

**139**

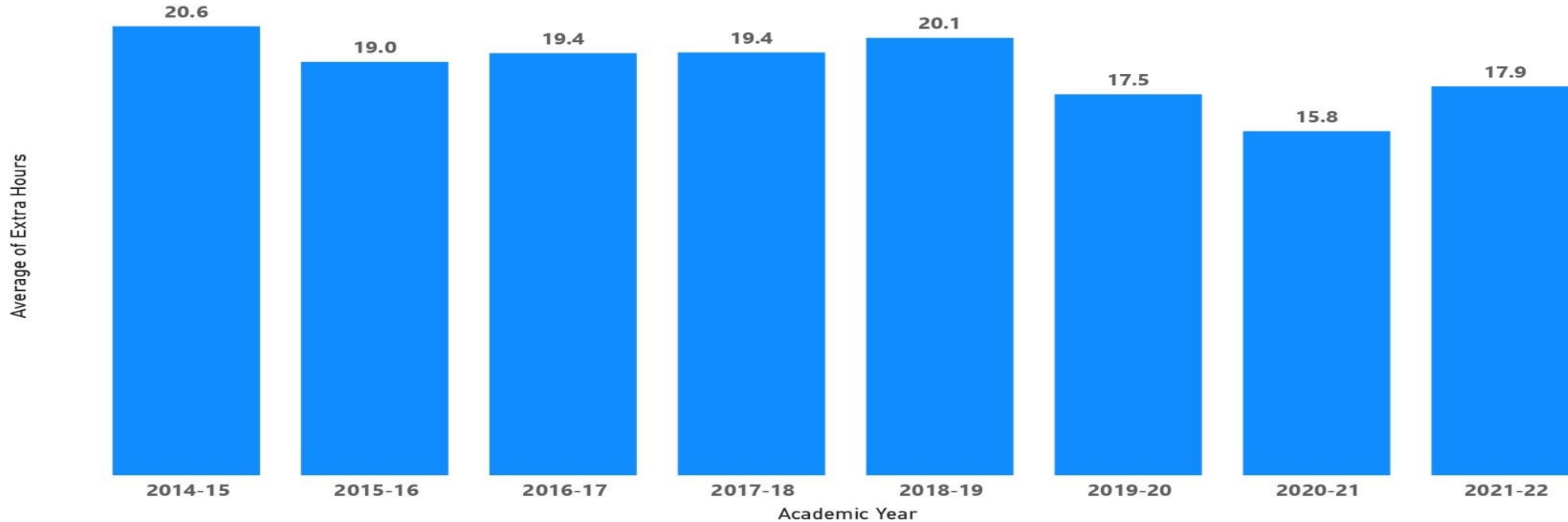
**Average Hours Earned**

**19**

**Average Hours Above Requirement**



Average of Extra Hours by Academic Year

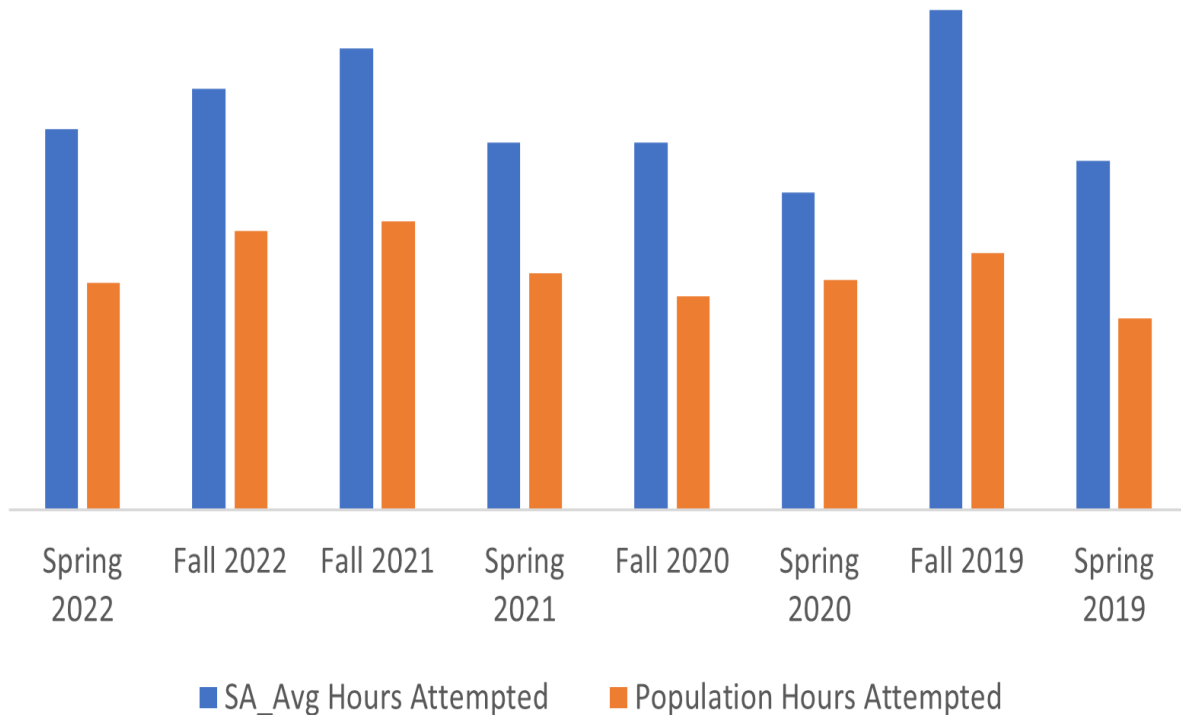


# IMPACT?

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Average Hours Attempted above Non- Participants

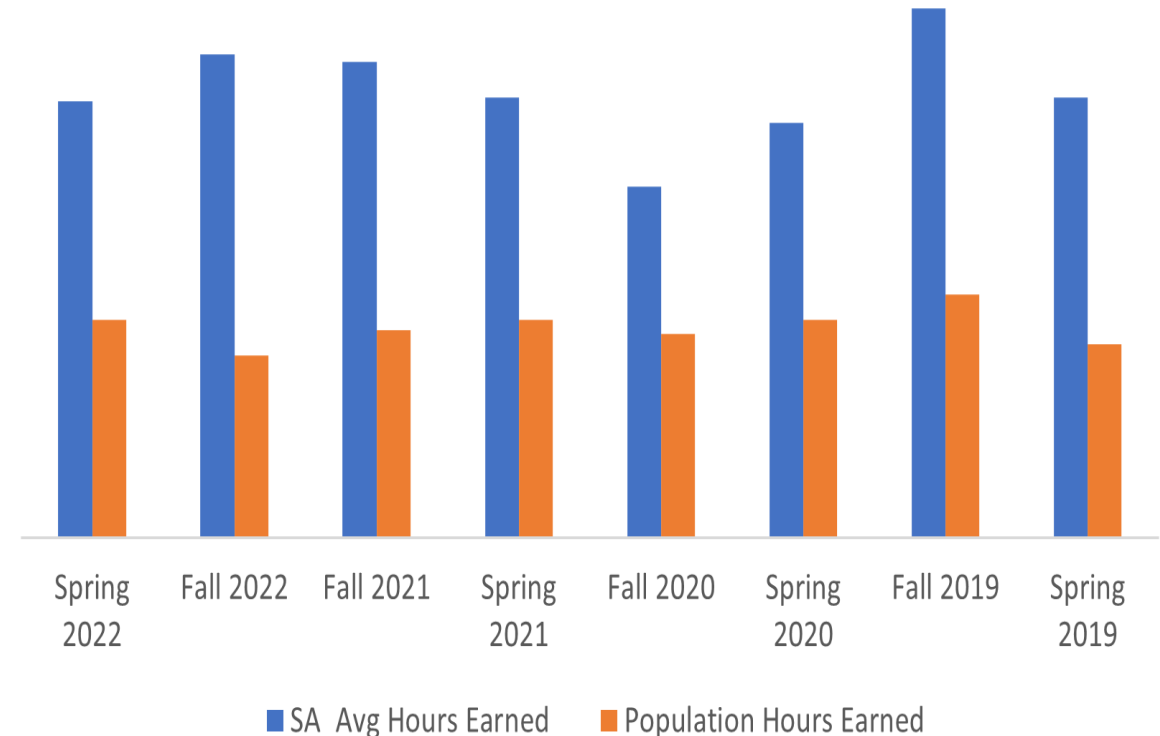
Graduating Students Hours Attempted Study Abroad VS Non-Study Abroad



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Average Hours Earned above Non- Participants

Graduating Students Hours Earned Study Abroad VS Non-Study Abroad



# IMPACT?

**3.37**

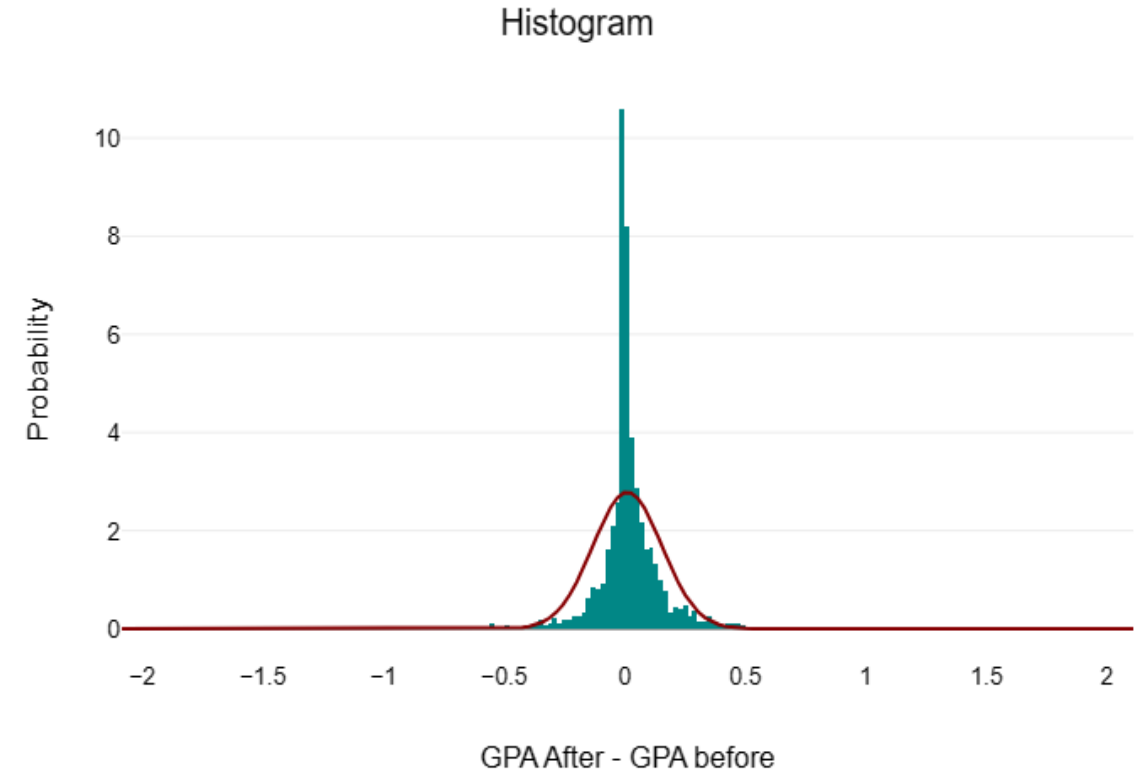
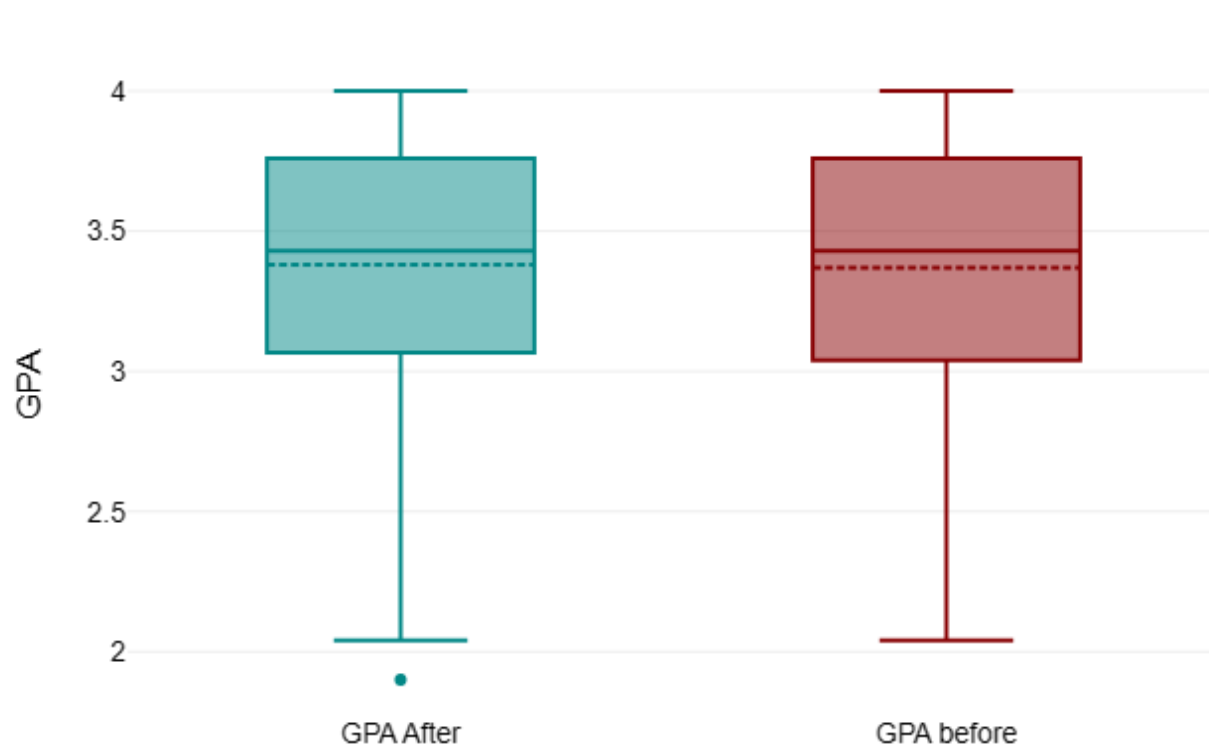
Average GPA before Study Abroad

**3.38**

Average GPA at Graduation

**0.01**

Average change in GPA



# IMPACT?

## t-Test for paired samples

➤ **Null Hypothesis:** There is no difference between GPA After and GPA before.  
i.e  $H_0 = \text{GPA After} - \text{GPA Before} = 0$

➤ **Alternative Hypothesis:** There is a difference between GPA After and GPA before.

The GPA After group had higher values ( $M = 3.38$ ,  $SD = 0.45$ ) than the GPA before group ( $M = 3.37$ ,  $SD = 0.46$ ).

A t-test for dependent samples showed that this difference was statistically significant,  $t(2015) = 3.43$ ,  $p = .001$ , 95% Confidence interval  $[0, 0.02]$ .

This results in a p-value of .001 , which is below the specified significance level of 0.05. The t-test result is therefore significant for the present data and the null hypothesis is rejected. Therefore, it is assumed that both samples are from different populations.

# NEXT STEP

- 
- **Pair wise Analysis between a Sample Group & Controlled Group**