

# The Impact of Commitment Devices on Academic Performances

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## Background

- Commitment devices are mechanisms put in place to help enforce the implementation of new habits or self-imposed restrictions to help individuals achieve their goals
- Academic performance can be influenced by habits such as regular exercise, sufficient sleep, reduced screen time, and consistent self-assessments

## Objective

- To determine if the use of commitment devices improves students' academic performance.
- To compare the academic outcomes of students who commit to a healthy habit (COMMIT) versus those who attempt but fail (ATTEMPT) and those who do not attempt (ABSTAIN).
- To identify which specific healthy habits (exercise, sleep, reduced screen time, self-assessment) are most effective in enhancing academic performance.

## Study Design & Methods

- IRB approved, retrospective, cohort study done at the University of Florida College of Pharmacy 3 campuses
- Study Period: January 1, 2019 to May 16, 2022 (N = 140)
- Students opting to participate chose between the following commitments:
  - Sleeping 7-9 hours a day
  - Exercising at least 30 minutes a day
  - Television or streaming cleanse
  - Cell phone or social media break (digital detox)
  - Scoring 100% on practice self-assessments within 2 tries
- Chosen commitments had to be habits the student does not already have
- Partial incentives were not given – students had to complete the habit every day during the elective period

**COMMIT** - Student signs contract stating they will complete their chosen habit every day of the elective period  
- Referee verifies student met daily requirements

**ATTEMPT** - Student signs contract stating they will complete their chosen habit every day of the elective period  
- Referee verified that the student did NOT meet daily requirements

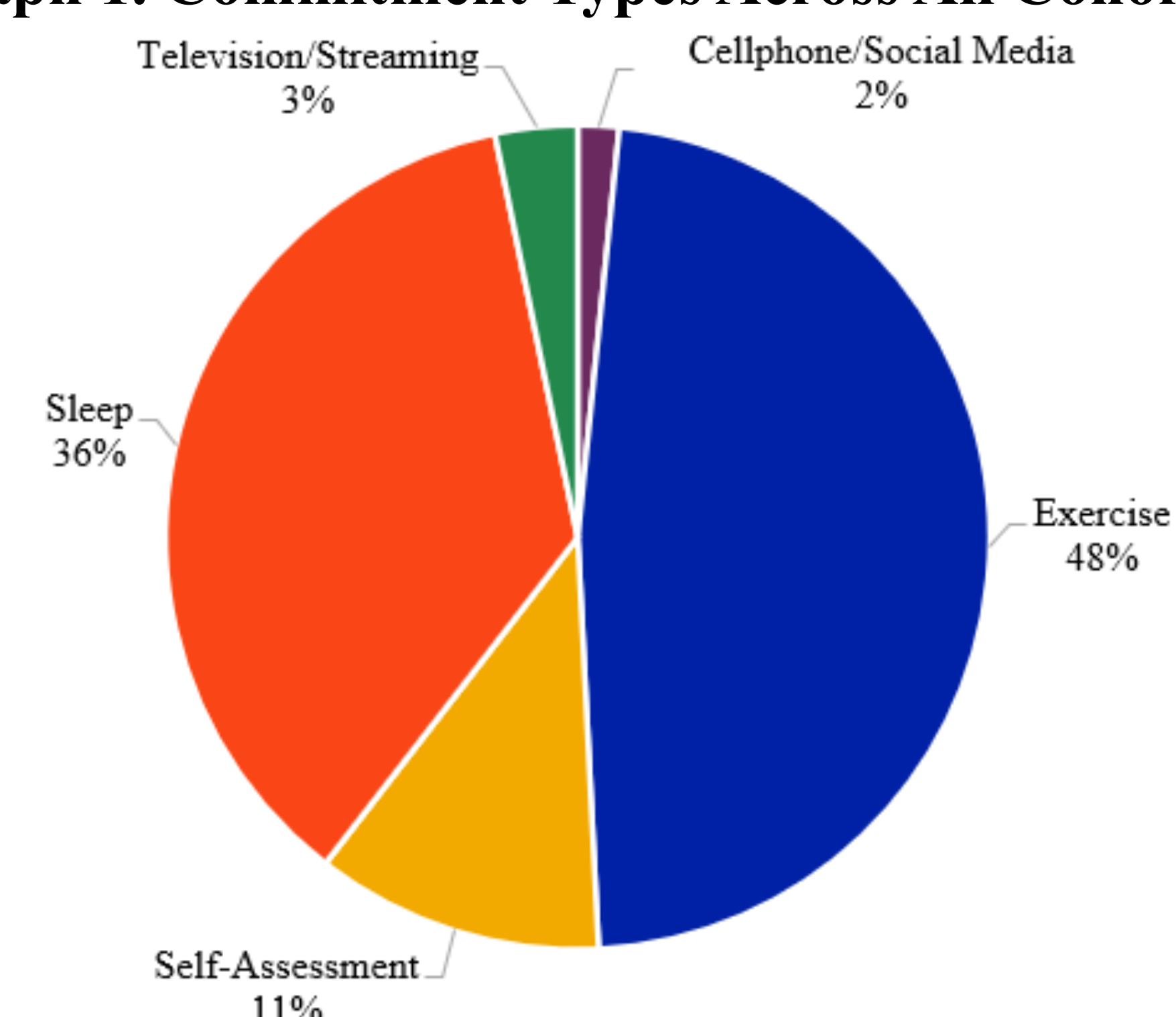
**ABSTAIN** - Student chooses NOT to participate

## Results

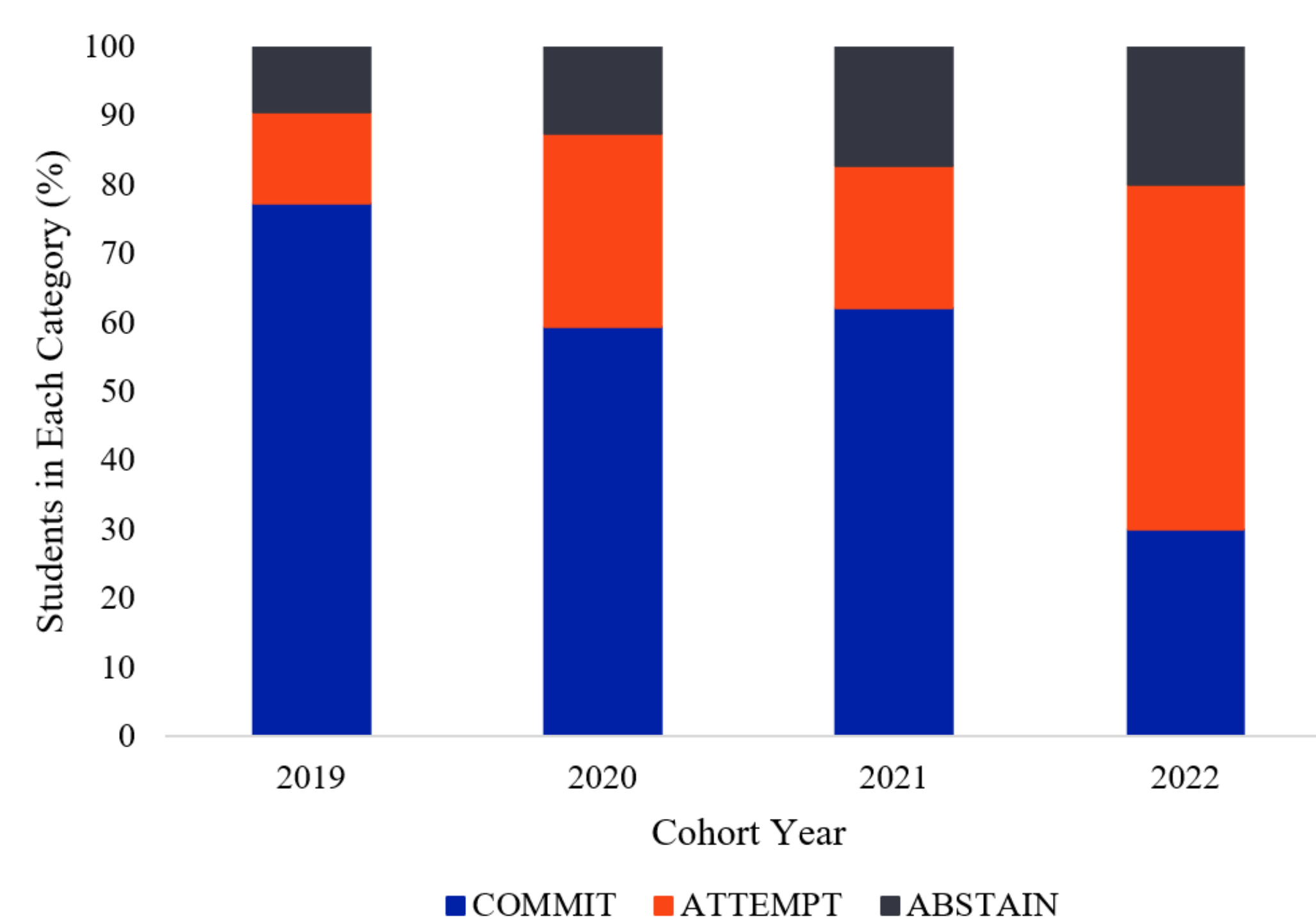
**Table 1. Student Participation Status**

Demographics	
Cohort Sizes (n=140)	
2019	58
2020	36
2021	31
2022	12

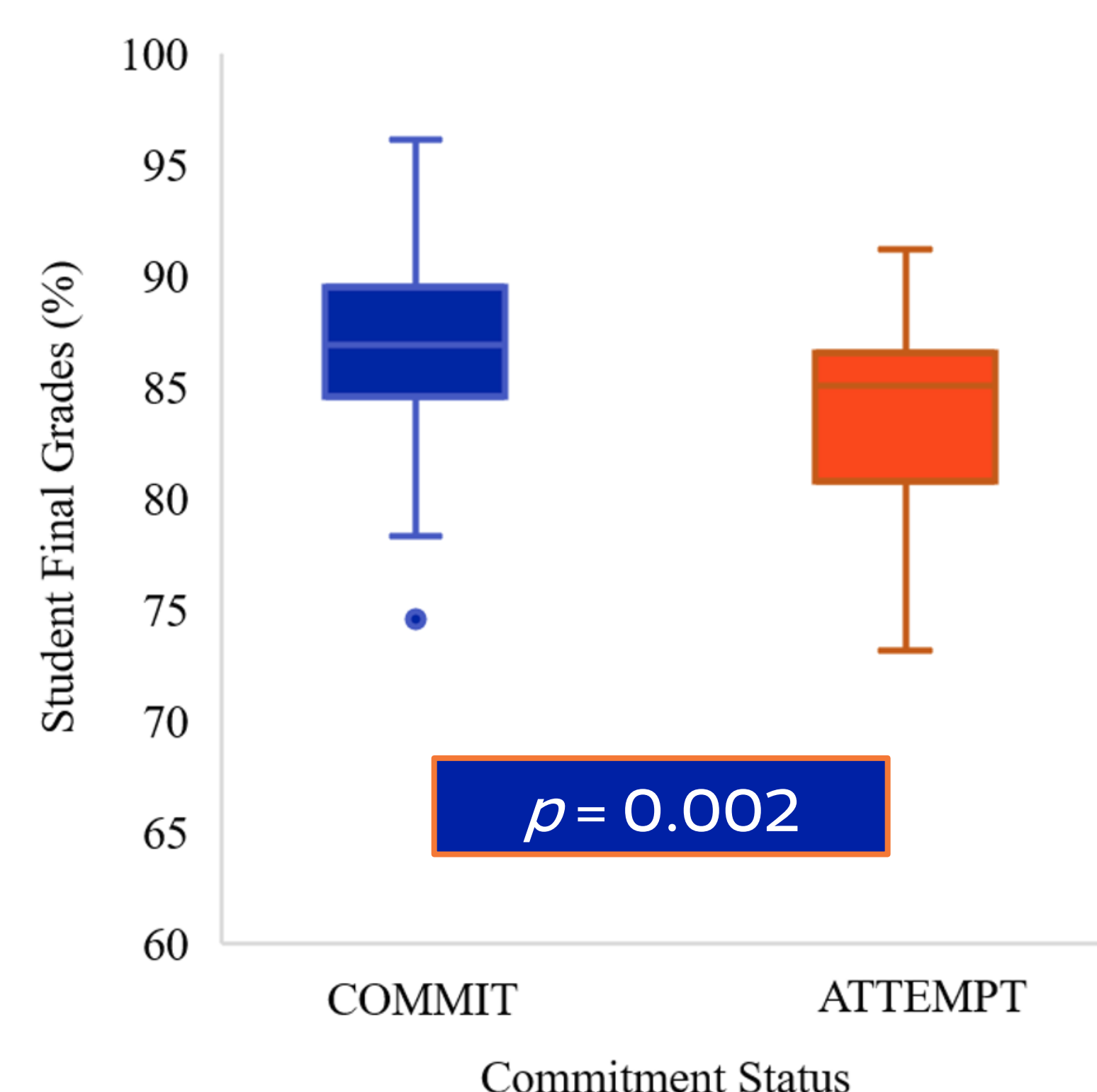
**Graph 1. Commitment Types Across All Cohorts**



**Graph 2. Commitment Status Across All Cohorts**



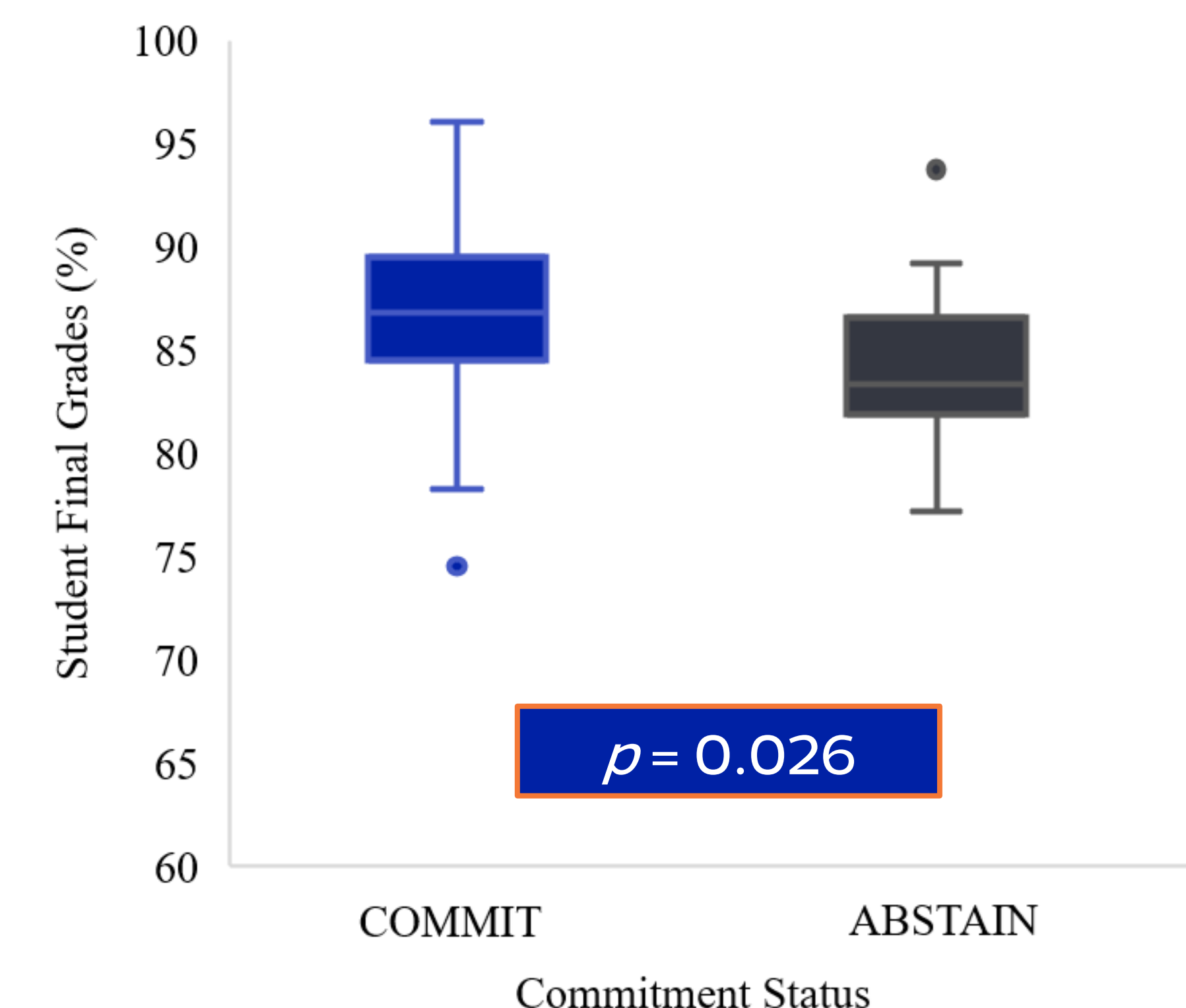
**Graph 3. Comparison of COMMIT and ATTEMPT Final Grades**



**Table 2. Comparison of Final Grades Across All Cohorts**

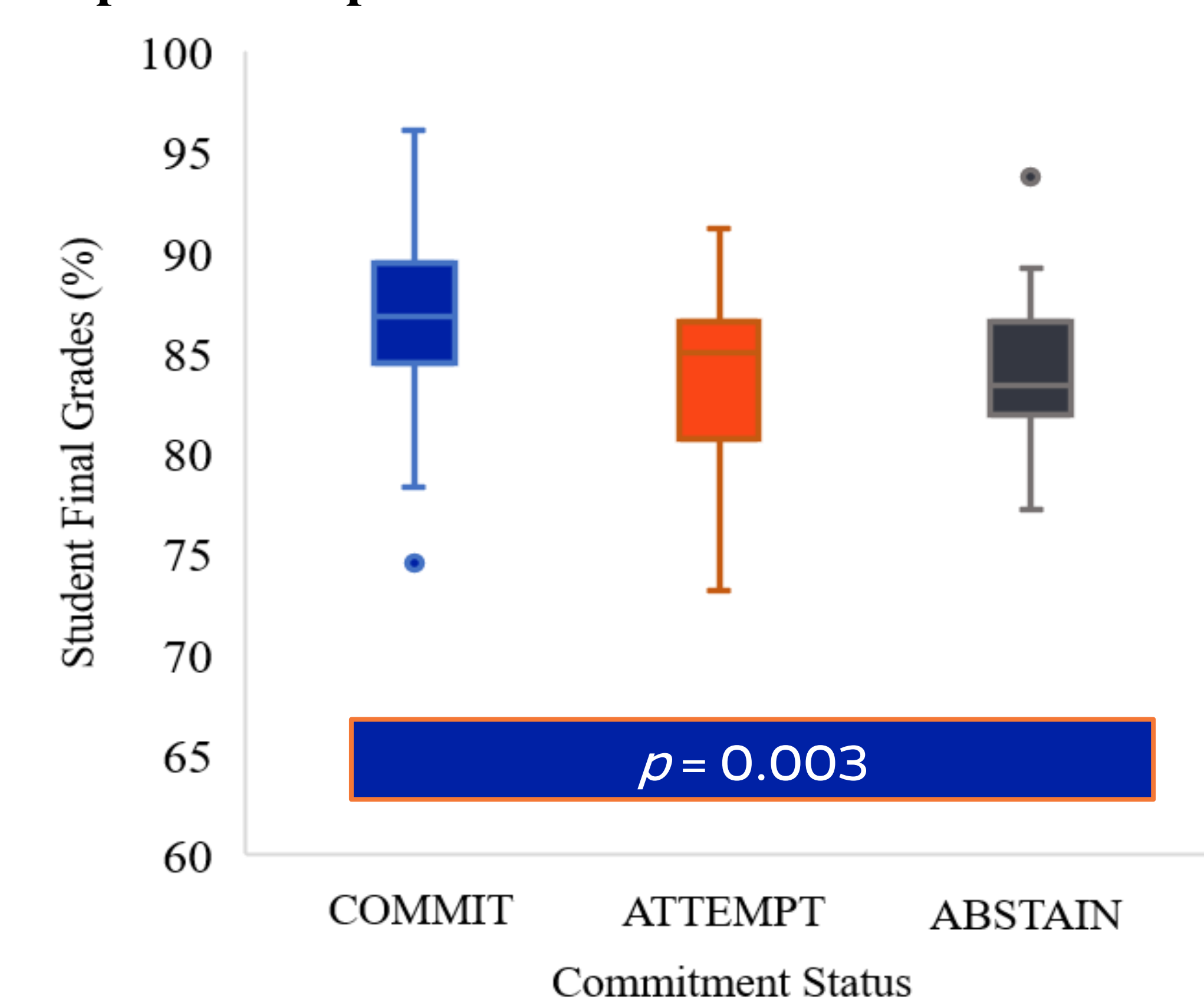
Commitment Status	Final Grade
COMMIT	86.46% ( $\pm 3.94\%$ )
ATTEMPT	83.68% ( $\pm 4.79\%$ )
ABSTAIN	84.05% ( $\pm 4.12\%$ )

**Graph 4. Comparison of COMMIT and ABSTAIN Final Grades**



## Results, cont.

**Graph 5. Comparison of Student Course Final Grades**



## Conclusions

- The commitment devices had a significant positive impact on the students' academic performance
- Majority of students were committed to a healthy habit
- Exercise and sufficient sleep were everyday chosen habits
- COMMIT students achieved a higher mean final grade
  - Significant compared to attempted

## Discussion

- Exercise and sufficient sleep habits may indicate students' preference for physical and mental well-being activities
- Study limitations include potential self-selection bias and reliance on self-reported adherence data
  - Healthy habits were evaluated for a short course (2 weeks)
- 100% commitment showed an impact on the final course grade, even compared to those that attempted the healthy habit
- Further prospective research may determine which habits yield better student academic results.

## Disclosures

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities.

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