

Effect of Unit Load on Student Success

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Introduction

The Graduation Initiative 2025 out of the CSU Chancellor's Office (CO) is meant to encourage campuses to make it easier for students to graduate in four years. The main arguments for this move are that then students can graduate with less debt, and that then the CSUs can graduate more students overall. GI 2025 is connected with specific goals for how many students the CO wants campuses to graduate in four years: at CSULB, the CO wants us to graduate 39% of our students in four years by 2025.

However, in all of our excitement over GI 2025 we tend to forget about the other 61% of students. These students are unable to, or have no interest in, graduating in four years for a number of reasons including work and family obligations. This study is interested in the students who for academic reasons perhaps should not aspire to graduating in four years.

Research Questions

In order to graduate in four years, students would have to take 15 units each semester, and that is what our advising these days usually encourages. However, this raises questions:

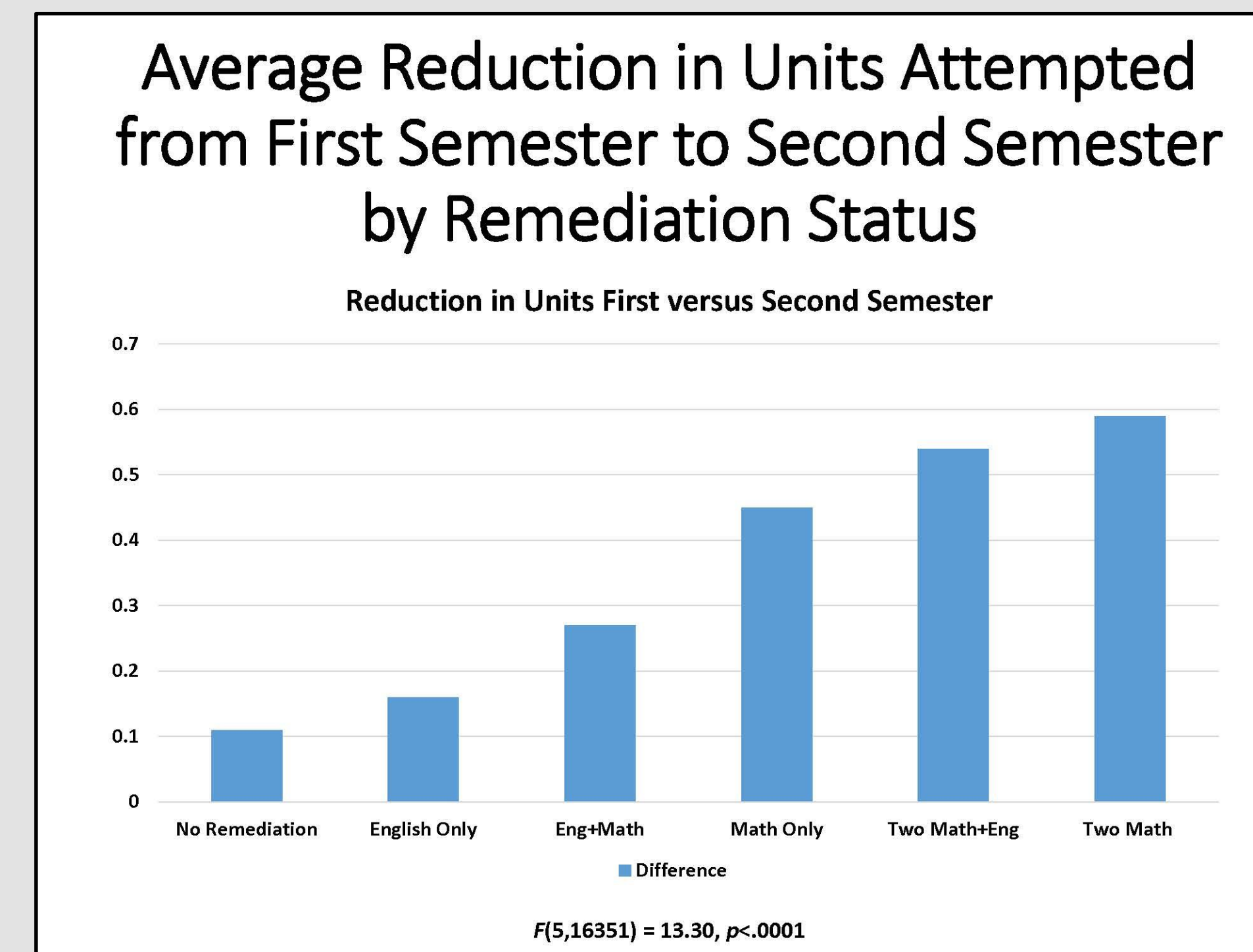
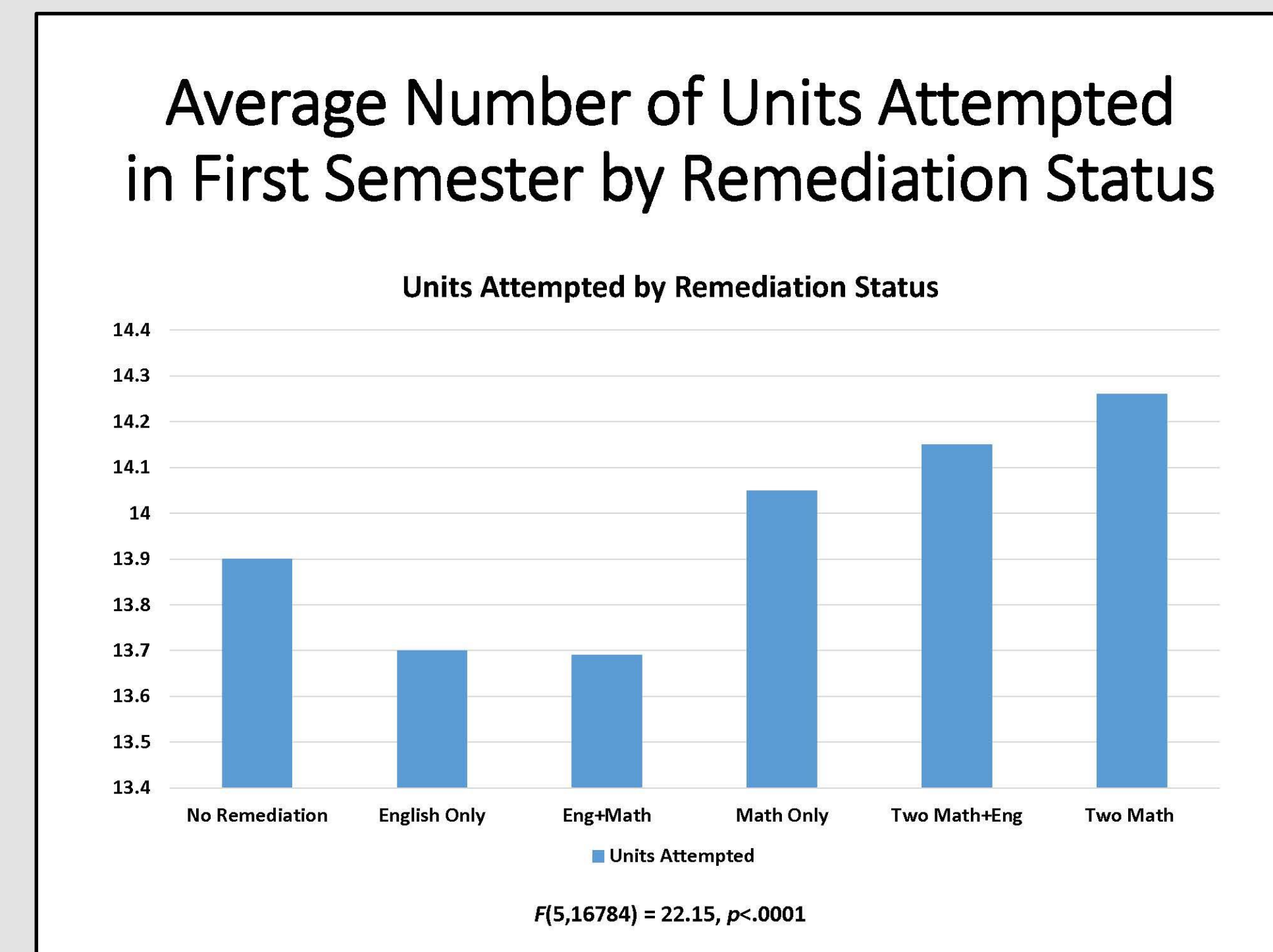
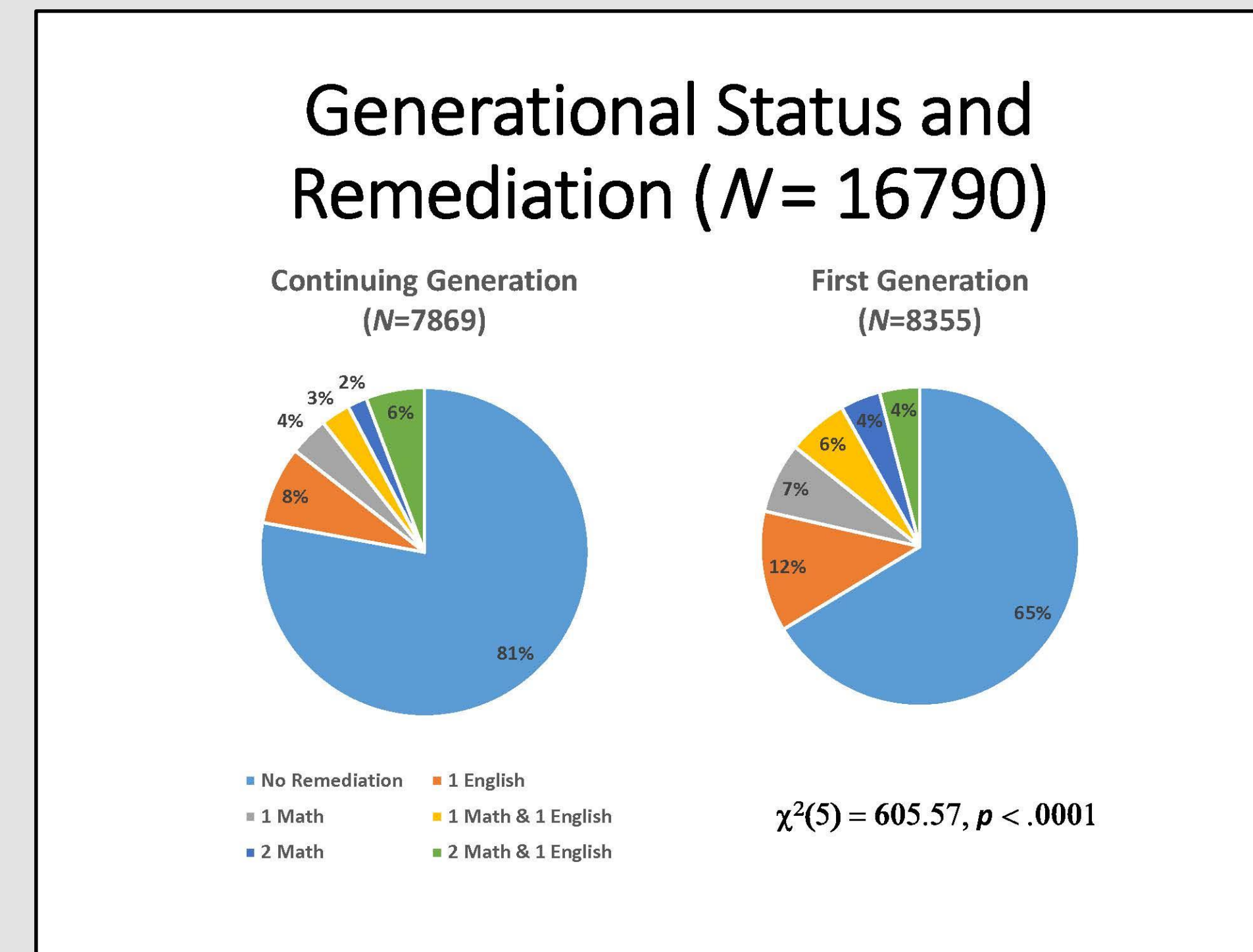
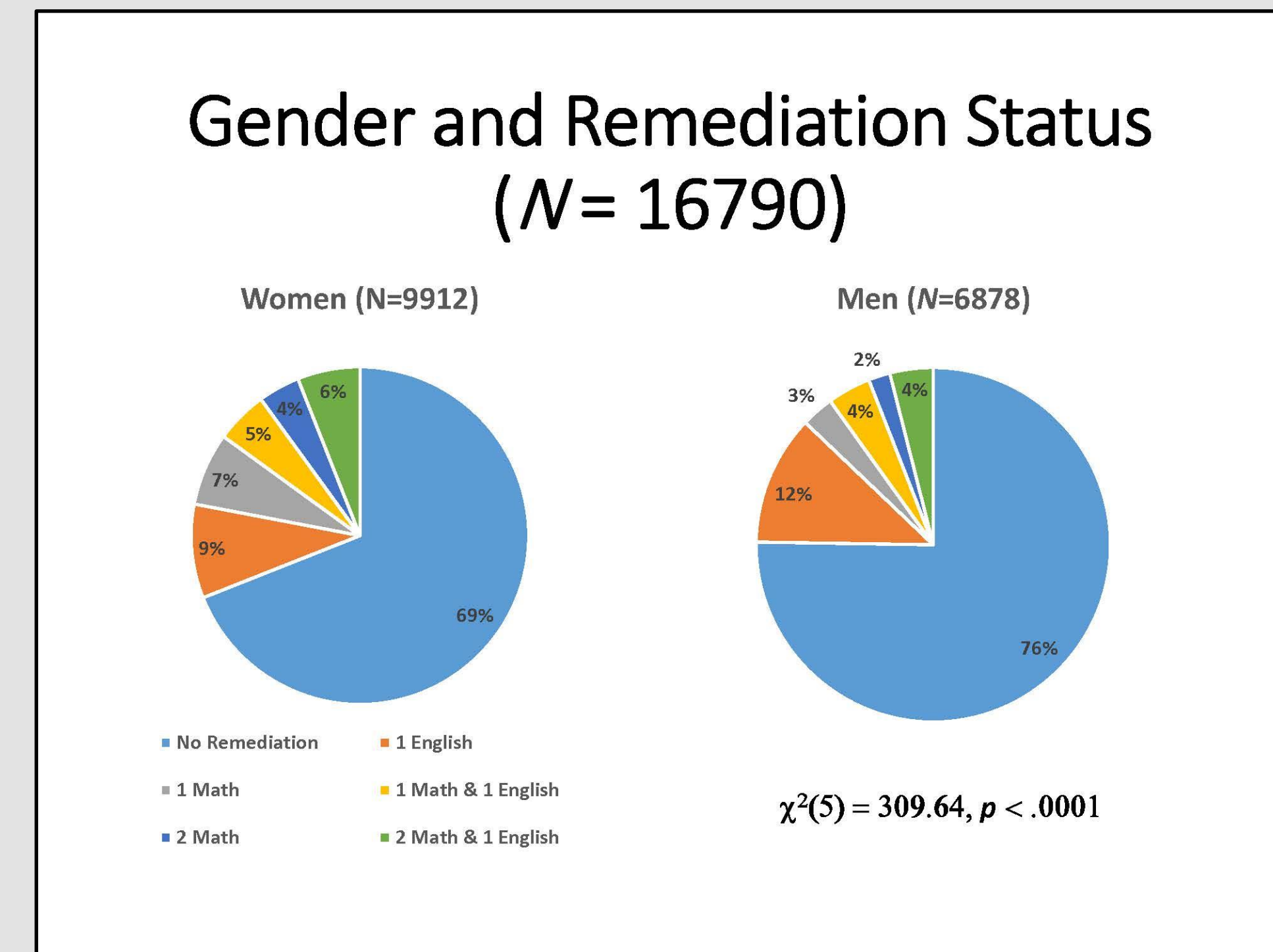
- Does taking more or less units in the first year have a long-term effect on student success (defined as retention and/or GPA in future semesters)?
- Is there a correlation between academic preparation, unit load, student progress, and student success?
- Should we really be encouraging *all* first-time first-year students to take 15 units a semester in their first year at CSULB?

Methods

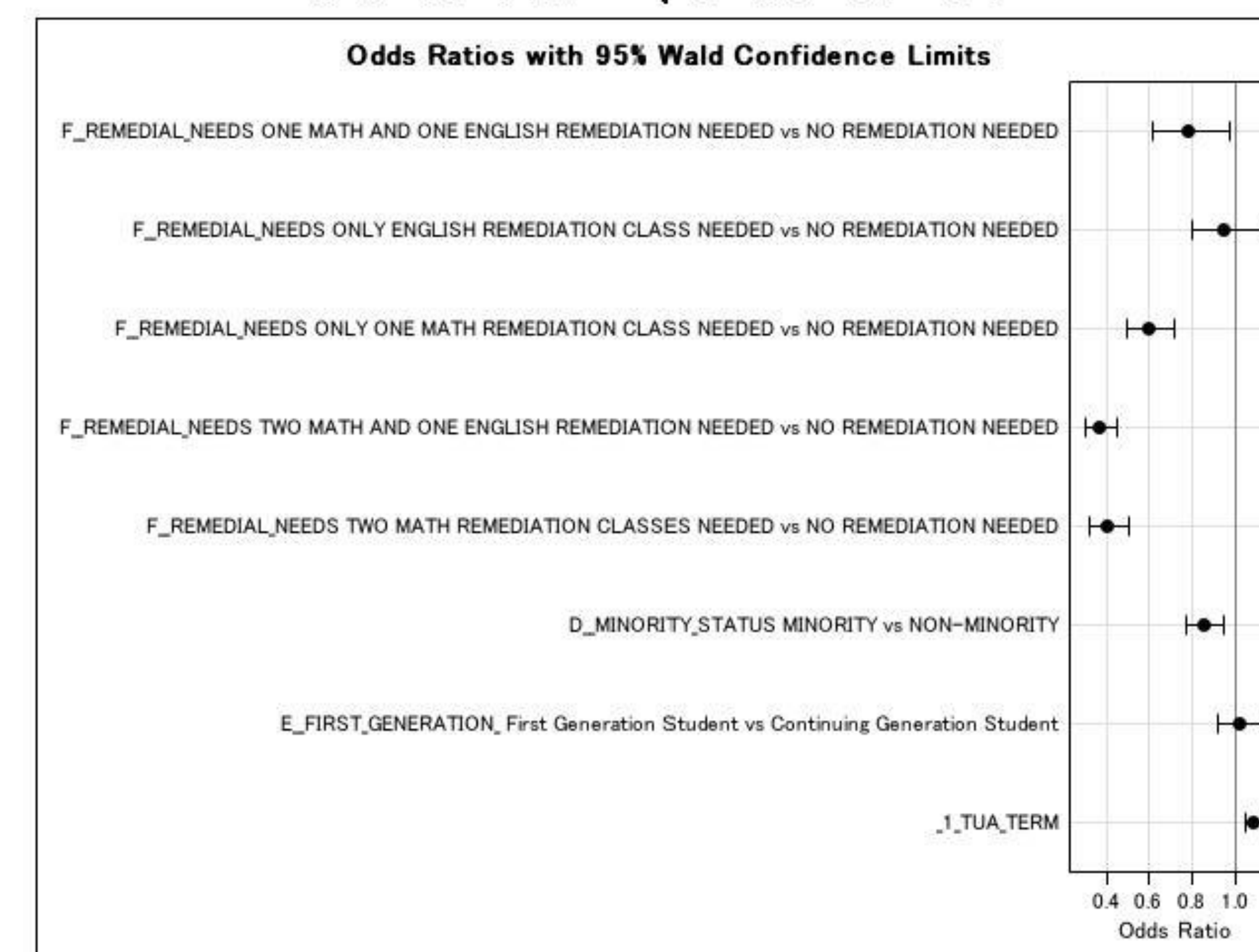
- **Longitudinal data** were obtained from Institutional Research and Analytics (IR&A) for four fall cohorts (2013-16) of first-time first-year students. Data included a total of 16,790 undergraduates and up to four semesters of enrollment persistence data.
- **Variables** included gender, minority status, first- or continuing generational status, remediation status, numbers of units attempted and earned for the three semesters following the first semester, and term GPA and cumulative GPA.
- A **persistence variable** was constructed based on whether the student attempted and earned units for all semesters or whether the student was not enrolled in any subsequent semester after the first one.
- A **difference variable** was created taking the units attempted in the first semester and subtracting the units attempted in the second semester.
- **Bivariate analyses** were used to describe associations between remediation status, gender, generational and minority status.
- **Logistic regression** was used to predict persistence.
- All analyses were done using SAS 9.4.

Thanks to IR&A for their amazing assistance in collecting data!!!

Results



Logistic Regression Predicting Persistence to Next Semester: Remediation, Minority and 1st-Generation Status, and Units Attempted in First Term



Conclusion / Discussion

- There is a significant association between **gender** and remediation status, with a larger proportion of men being classified as needing no remediation than women.
- **First-generation students** have a significantly smaller proportion classified as needing no remediation compared to continuing generation students.
- Students classified as requiring any **Math** remediation attempted significantly higher numbers of units in their first semester than students with no remediation requirement or those who required remediation in **English** only.
- From the first semester to the second semester, there was a significantly greater average **reduction in the number of units attempted** based on remediation status, with students requiring any math remediation reducing their second-semester units attempted more students requiring no remediation or English only.
- In the logistic regression model, students with *any* remediation needs (with the exception of English only) had **significantly reduced odds of persisting into subsequent semesters** compared to students with no remediation requirements.
- When controlling for minority status and continuing/first-generation status, only **minority status** was significantly associated with reduced odds of persisting into subsequent semesters.

Implications for Action

Students with multiple remediation requirements may be too optimistic in their assessment of how many units they can handle in their first semester. Therefore, they often attempt more units than non-remediation students. By the second semester, students with multiple remediation requirements reduce their overall units attempted from their first semester; as they persist, they may be learning lessons about college work load and making adjustments accordingly.

- The University might encourage students with multiple remediation needs to take *fewer* units in their first semester.

It seems that students taking English remediation have a better chance of success than students taking Math remediation.

- The University might support departments and disciplines to revisit remediation classes (whatever we call them).

Next Steps / Future Directions

- A better understanding of how advising should be conducted for students with remediation requirements is necessary.
- There are differences between students with English remediation and Math remediation requirements that require further investigation.
- CSULB no longer offers traditional remediation, and remediation status is now captured differently in the data. Now, students are categorized numerically (1-4) in their skills—so this study needs to adapt accordingly.