The Association Between Grade Retention and Adolescents' Outlook on Life

Kaden Miller, Applied Data Analysis, Wesleyan University

Introduction

- Grade retention is a popular and controversial method of discipline that's associated with multiple educational and socioeconomic outcomes (Warren et al., 2014)
- Associations between grade retention and negative academic outcomes (poor performance) have also been drawn (Larson & Valant, 2023), though some have found no association whatsoever (Goos et al., 2021) or even a slight positive association (Schwerdt et al., 2017)
- Academic success has separately been correlated with student happiness (Chen & Lu, 2009)
- Academic success has also been implicated in the understanding of students' life satisfaction (Lettau, 2021)
- However, an association between grade retention and students' outlook on their current and future lives has yet to have been established.

Research Questions

- Is grade retention in any way associated with a student's outlook on their life?
- Does the association between grade retention and life outlook differ between students with positive and negative parent relationships?

Methods

Sample

- Respondents (n=6504) were drawn from the U.S. National Longitudinal Survey of Adolescent Health (ADDHEALTH), a nationally representative sample of adolescents in Grades 7-12 who began the survey during the 1994-95 school year. Wave I of the study is the only Wave used for this investigation.

Measures

- Participants self-reported which grades, if any, they had been held back
- A score was created for life outlook utilizing participants' answers to questions about how they see their current and future lives. Each of the responses were dichotomized so their impacts are equal on the score, which ranges from 0-10
  - Topics included if the student felt socially accepted, hopeful about the future, depressed, or loved and wanted
- Participants self-reported their level of satisfaction with their parent relationships

Results

Univariate

- 18.8% of participants had been held back once, 2.4% were held back twice and 0.1% were held back three times
- On a scale of 10, 87.3% of participants scored a 7 or higher for life outlook, where a higher score represents a more positive outlook

Bivariate

- ANOVA analysis showed that **grade retention was significantly associated with participant's life outlook score** ($F_{(6393)}$=2.7, p<2e-16) (Figure 1).
- Post-hoc analysis on the individual subsets revealed that **grade retention remained significantly and negatively associated** with participants' outlook score.
- Linear regression shows that **each time a student repeats a grade, their outlook score decreases on average by 0.64** (Intercept = 8.6, p<2e-16)

Figure 1. Outlook Score by Number of Times Retained
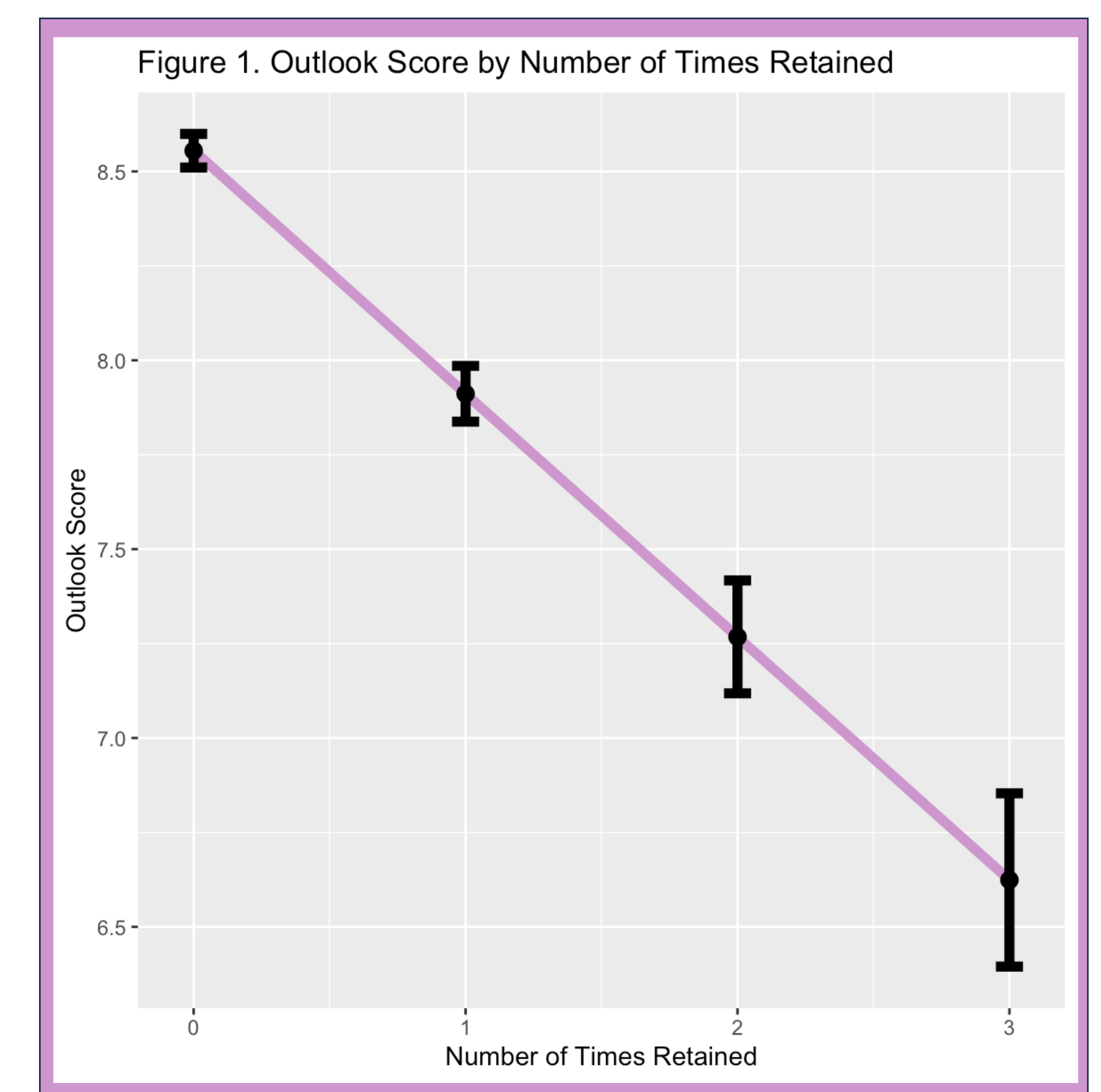
Multivariate

- Multiple linear regression analysis reveals that that **grade retention is still significantly associated with** participant's outlook score after controlling for parent relationships (β=-0.65, p<2e-16) (Figure 2).
- **Satisfaction with parent relationships was found to be significantly associated** with life outlook after controlling for grade retention (β=1.70, p>2e-16).
- The interaction between grade retention and satisfaction with parent relationships was found to be significantly associated with grade retention.

Figure 2. Outlook Score by Number of Times Retained, including Satisfaction with Parent Relationships
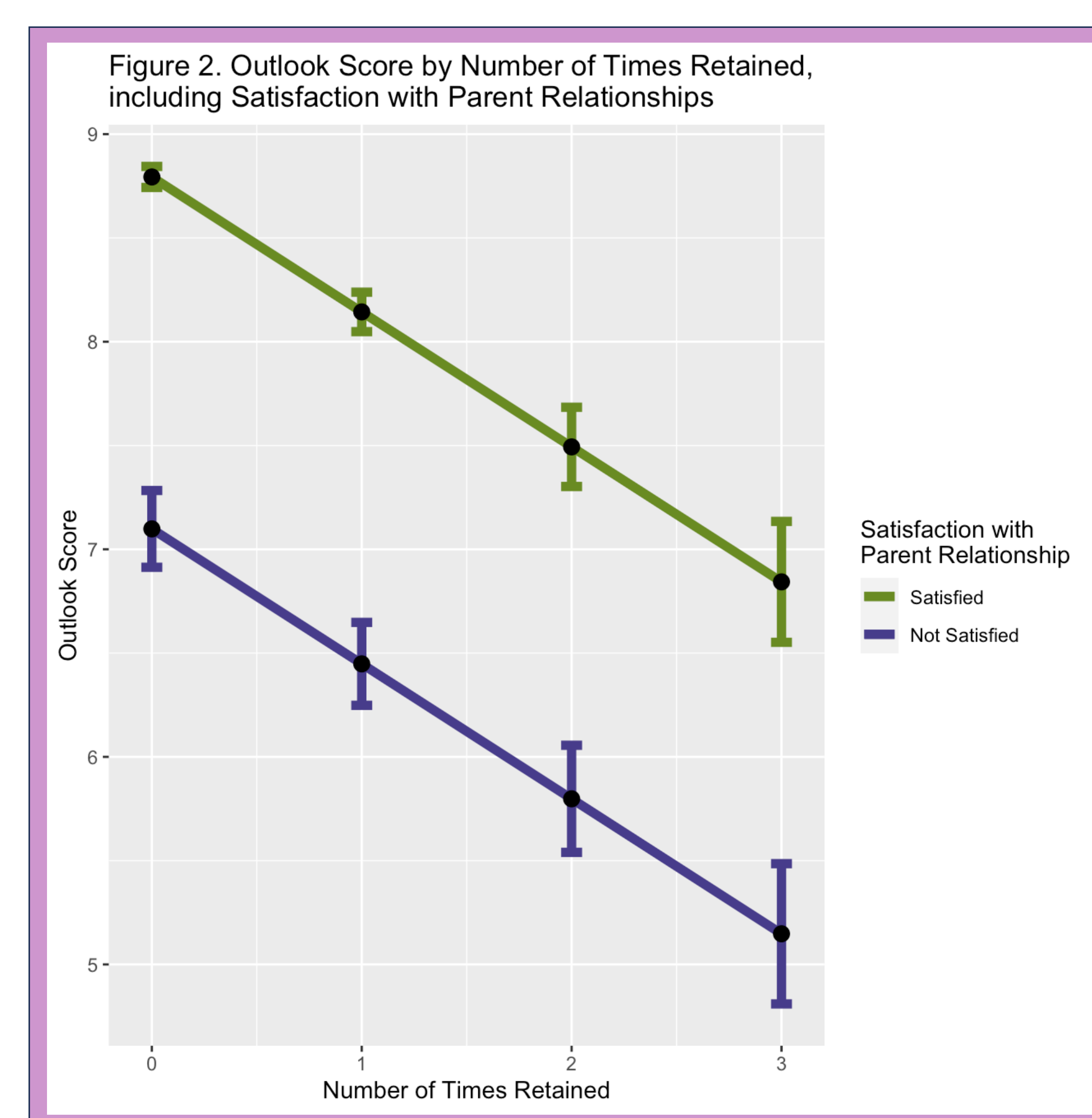
Discussion

- Students that were held back scored lower when tallying each element of the outlook score than students who were never held back
- Students' satisfaction with their relationship with their parents also correlates positively to students' outlook scores
- Most student answers were rated on a scale of 1-5, but answers were converted to binary options so that each element of the score was equally weighted. For some students, certain questions may have different weights than others
- Further research is needed to determine how applicable these findings are to more students, especially as grade retention continues to be re-evaluated and other methods of academic discipline are considered

Chen, S.-Y., & Lu, L. (2009). Academic correlates of Taiwanese senior high school students' happiness. *Adolescence*, *44*(176), 979–992.
Goos, M., Pipa, J., & Peixoto, F. (2021). Effectiveness of grade retention: A systematic review and meta-analysis. *Educational Research Review*, *34*, 100401.
Jimerson, S. R. (2001). Meta-analysis of Grade Retention Research: Implications for Practice in the 21st Century. *School Psychology Review*, *30*(3), 420–437.
Larsen, M. F., & Valant, J. (2023). The Long-Term Effects of Grade Retention: Evidence on Persistence through High School and College. *Journal of Research on Educational Effectiveness*, *0*(0), 1–32.
Lettau, J. (2021). The Impact of Children's Academic Competencies and School Grades on their Life Satisfaction: What Really Matters? *Child Indicators Research*, *14*(6), 2171–2195.
Schwerdt, G., West, M. R., & Winters, M. A. (2017). The effects of test-based retention on student outcomes over time: Regression discontinuity evidence from Florida. *Journal of Public Economics*, *152*, 154–169.
Warren, J. R., Hoffman, E., & Andrew, M. (2014). Patterns and Trends in Grade Retention Rates in the United States, 1995–2010. *Educational Researcher*, *43*(9), 433–443.