

The Effects of High School Non-promotion on High School Graduation, College, and Career Outcomes

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Background

- Non-promotion occurs when student do not advance to their next grade level
- Promotion versus non-promotion is determined using grades, credit attainment, test scores
- Promotion/non-promotion criteria are set at the LEA level and enforced by individual high schools
 - Credit attainment cut-offs
 - Administrative discretion
- We know a lot about non-promotion in early grades (i.e., 3rd-grade grade retention), but less about non-promotion in high school

Current Study

Research Questions:

1. Does non-promotion in high school impact the likelihood of graduation?
 1. Do these impacts vary by student characteristics?
 2. Do these impacts vary by grade-level?
2. Does non-promotion in high school impact students' college outcomes?
3. Does non-promotion in high school impact students' early career outcomes?

Contributions: Focuses on later-grade non-promotion & expands outcomes past high school graduation

Data: Maryland Longitudinal Data System Center

Methods: descriptive patterns of non-promotion, propensity score matching, linear probability models

Sample Selection

- Grades 9-12 in 2013-2016
 - Must be observed in 9th grade
- Traditional Public Schools
- No school switchers
- Removed students non-promoted more than once

Measuring Outcomes

HS Graduation: *Does student ever graduate high school (measured up to 2020)?*

College Enrollment: *Conditional on HS graduation, does student ever enroll in college (measured up to 2020)?*

1-year college persistence: *Conditional on college enrollment, do students enroll in a second year of college (3 semesters of enrollment)?*

Developmental coursework: *Conditional on college enrollment, do students enroll in developmental coursework in college?*

Wages/visibility 1yr: *Limited to students expected to graduate HS by 2018*

Wages/visibility 2yrs: *Limited to students expected to graduate HS by 2017*

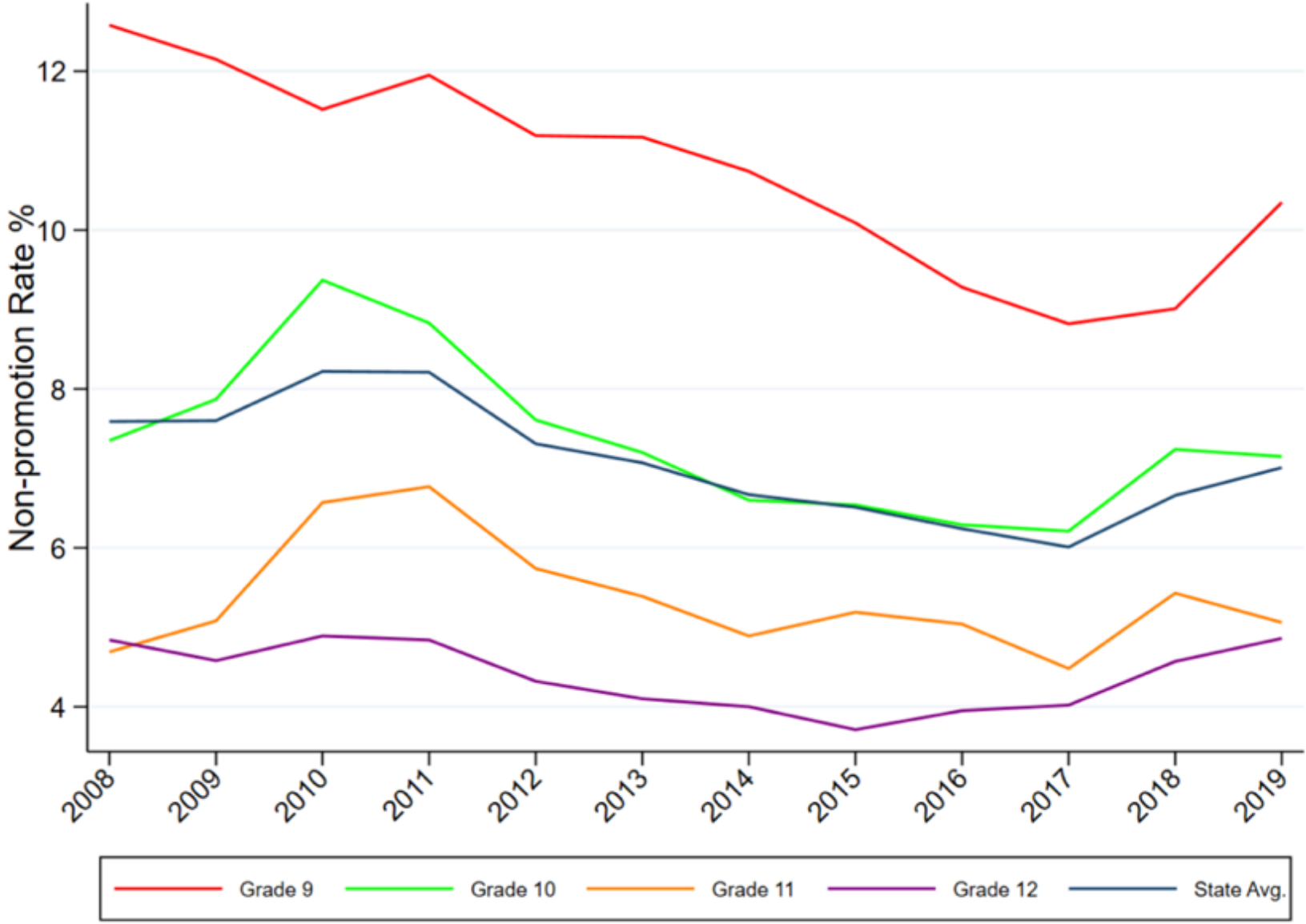
Cohorts

Year Begins 9 th grade	2013	2014	2015	2016	2017	2018	2019	2020
2013	HS	HS	HS	Expected HS grad.	Outcomes	Outcomes	Outcomes	Outcomes
2014	X	HS	HS	HS	Expected HS grad.	Outcomes	Outcomes	Outcomes
2015	X	X	HS	HS	HS	Expected HS grad.	Outcomes	Outcomes
2016	X	X	X	HS	HS	HS	Expected HS grad.	Outcomes

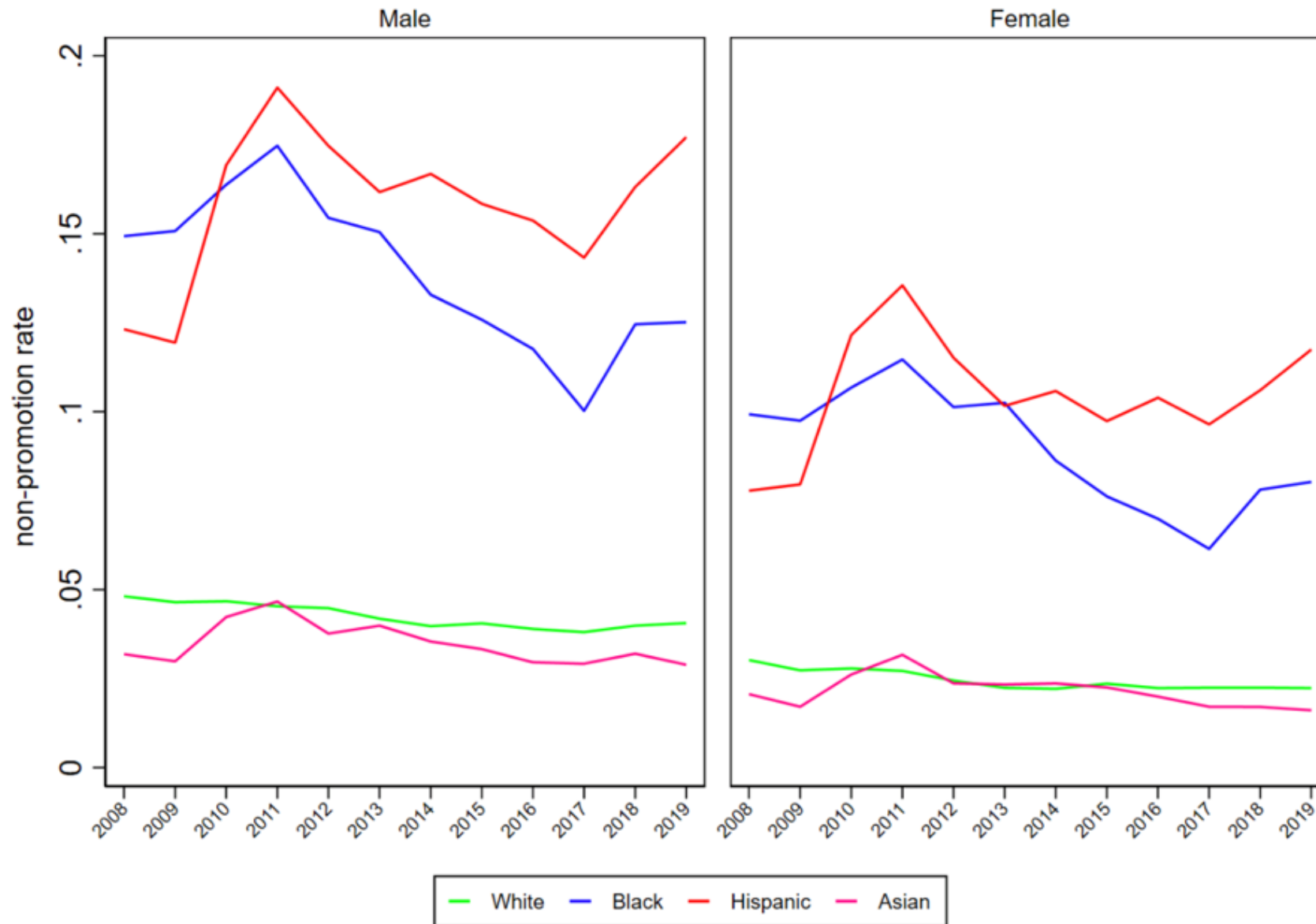
Matching Controls & Fixed Effects

- School fixed effects
- Grade 9 cohort year
- Grade 9 controls:
 - Demographics: race, ethnicity, gender
 - Credits earned
 - Credits earned by subject: ELA, math, science, social studies
 - GPA
 - # classes failed
 - Classes failed by subject: ELA, math, science, social studies
 - Indicators of whether students took: AP, IB, dual enrollment courses

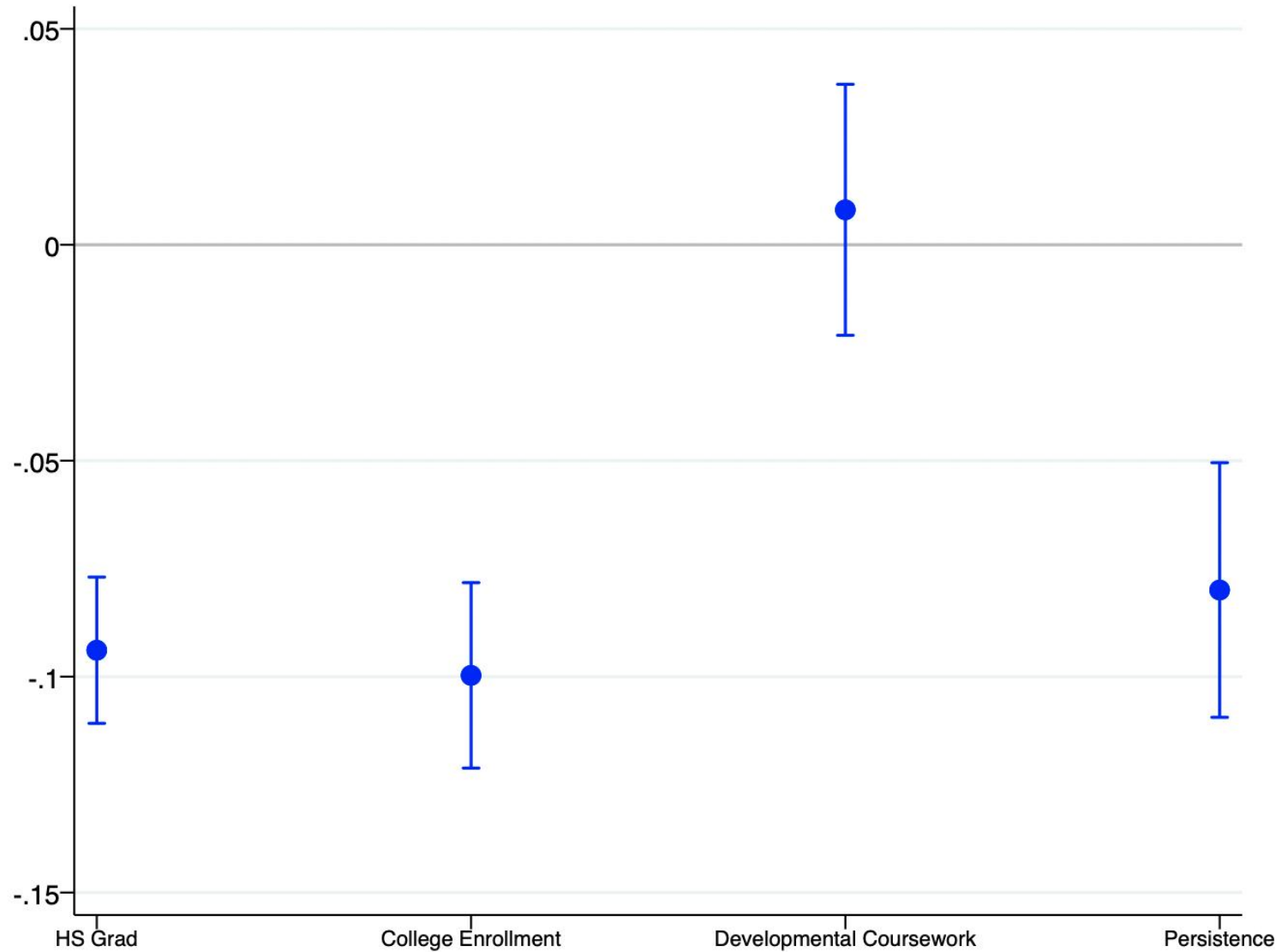
Non-Promotion Rates Over Time, By Grade



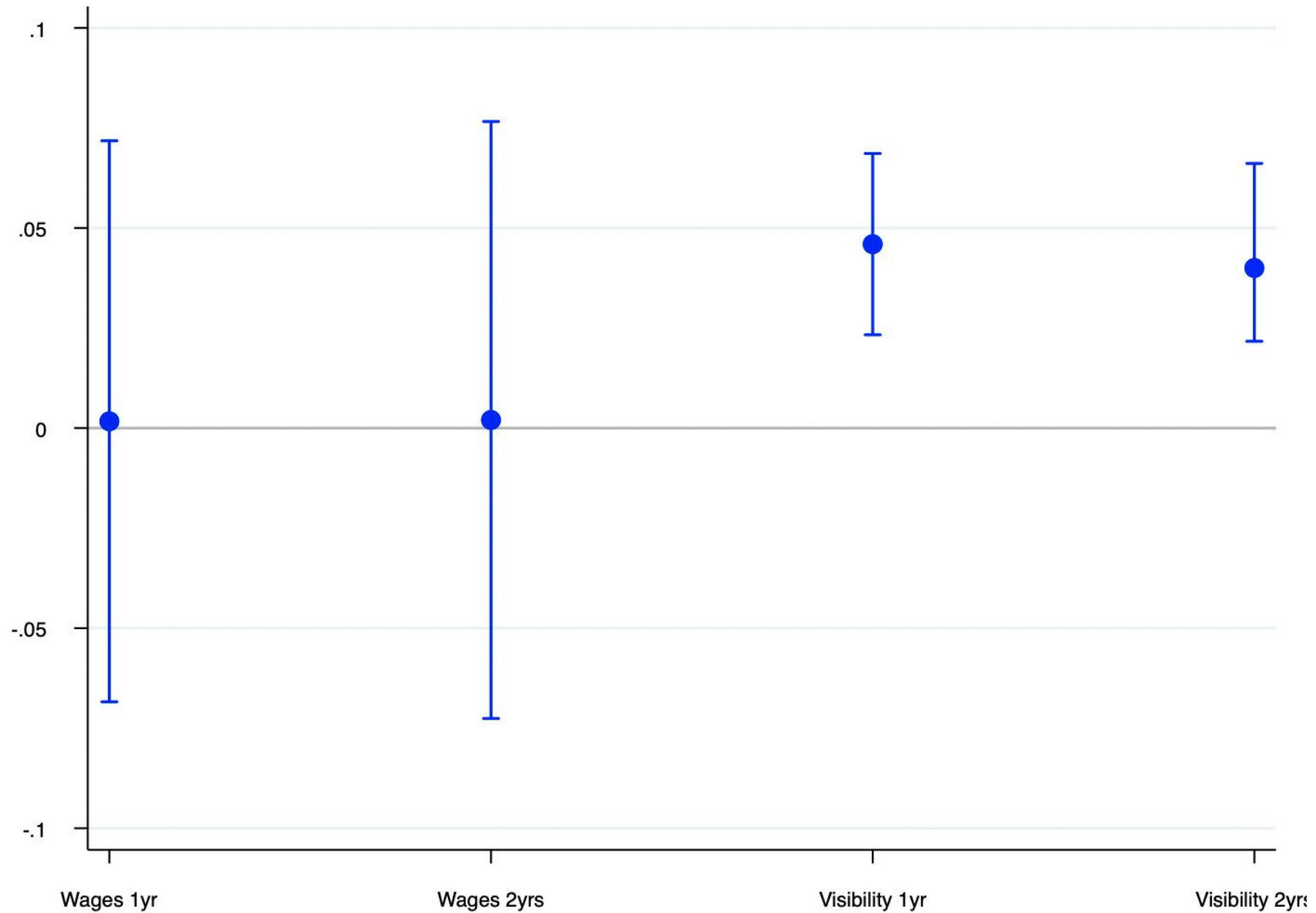
Non-Promotion Rates by Student Characteristics



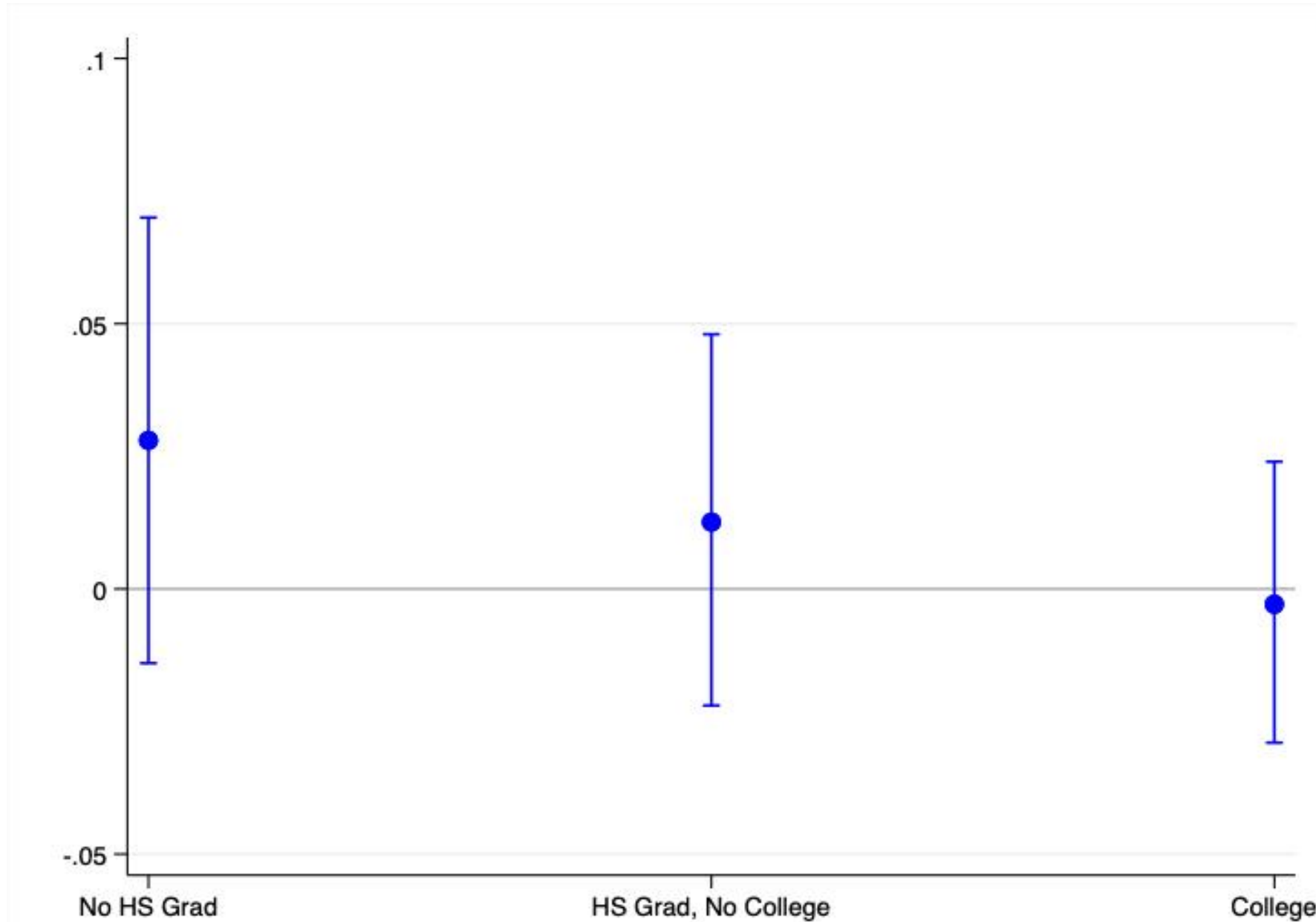
The Impact of Non-promotion on HS Graduation and College Outcomes



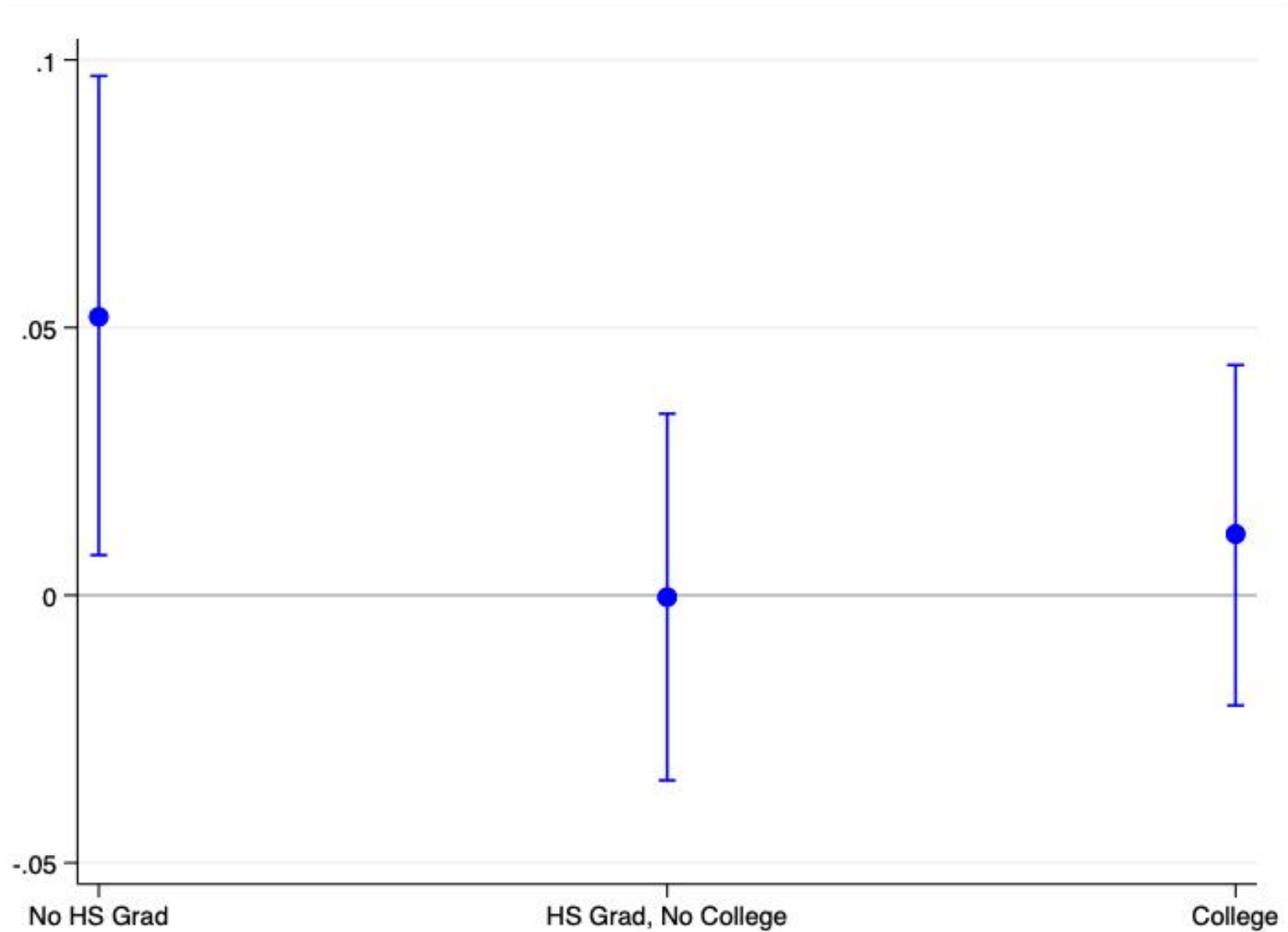
The Impact of Non-promotion on Early Career Outcomes



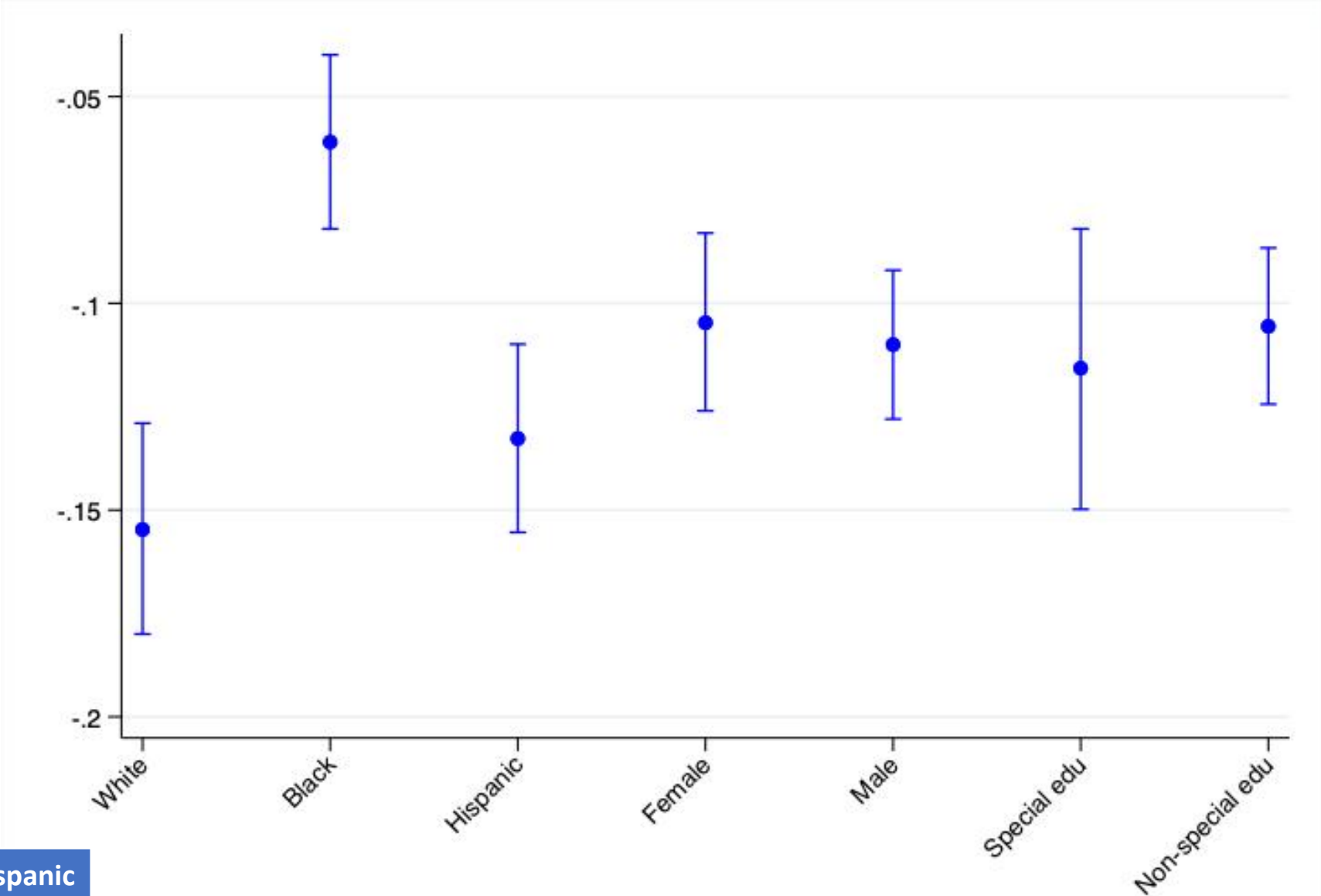
Wage Visibility 1 year



Wage Visibility 2 years

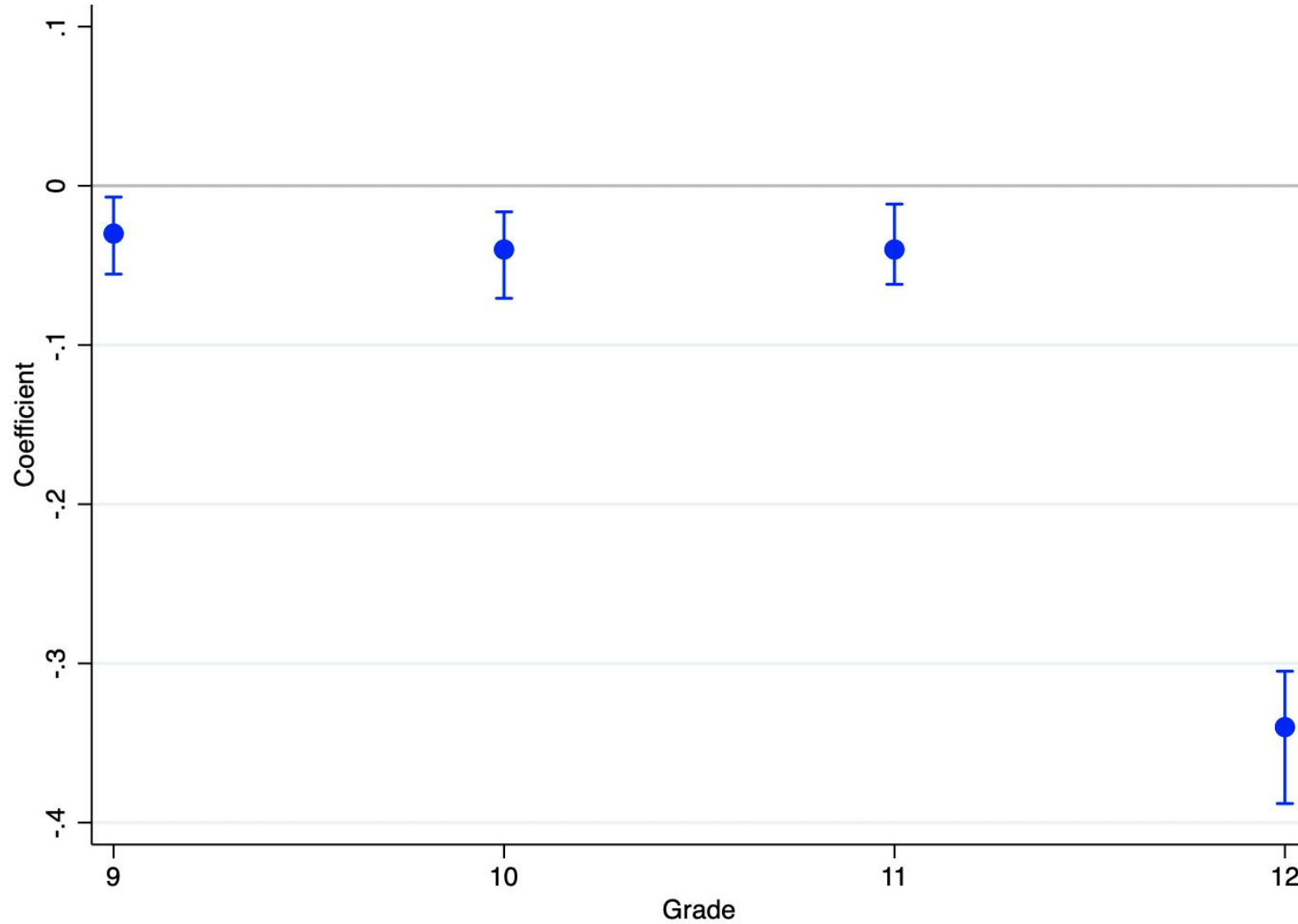


The Impact of Non-promotion on HS Graduation by Student Characteristics



White	Black	Hispanic
91%	87%	80%

The Impact of Non-promotion on HS Graduation by Grade



Summary of Results

- Immediately raises risk of high school dropout
- Decreased likelihood of college enrollment and persistence
- Increases likelihood of developmental education in college
- Increased likelihood of wage visibility (employment)

Limitations

- Knowledge of interventions accompanied with non-promotion
 - Summer school, additional in-school services
- PSM and omitted variables
- Disentangling impact of non-promotion versus underlying characteristics that led to non-promotion
- Limited sample for labor market outcomes
 - Workers within MD, no federal employees, no self-employed

Conclusions

- Consistent evidence that non-promotion limits academic attainment
- Implications students may be diverting more time to work force and career entry
 - Potential for this pattern to reverse over time
- Results contribute to discussions of how to increase college and career readiness amongst students
 - Intervention strategies
- Variation in treatment effects across student groups and grade levels

Thank You!

Questions?

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