


Test-Optional Admissions Policies and Student Success Metrics

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This study examines the relationship between test-optional undergraduate admissions policies and two common student success metrics: the retention rate for first-year students and the 6-year graduation rate for bachelor's students. Using a difference-in-differences analytic approach designed to account for the staggered nature of policy adoption, I find that test-optional policies adopted prior to the COVID-19 pandemic were not associated with statistically significant changes in institution-level retention and graduation rates overall. However, subgroup analyses by institutional selectivity indicate that test-optional policy enactment was associated with a 2 percentage point increase in graduation rates for men, women, and White students at institutions with more competitive admissions but a 2 percentage point decrease in graduation rates for White students at institutions with less competitive admissions.

Keywords: admissions; college admissions; colleges; descriptive analysis; econometric analysis; economics of education; educational policy; higher education; policy; quasi-experimental analysis; standardized tests; student success; test-optional

Historically, the vast majority of selective colleges and universities in the United States required undergraduate applicants to submit their scores from college admissions tests, such as the ACT and SAT. In recent decades, though, a growing number of institutions have implemented test-optional policies for undergraduate admissions (Belasco et al., 2015; Bennett, 2022; Furuta, 2017). Under these policies, students can decide whether to submit test scores as part of their application. Following widespread cancellations of in-person standardized testing during the COVID-19 pandemic (Camara & Mattern, 2022), the number of institutions with test-optional policies has expanded even more dramatically since 2020 (Wong et al., 2023). Given the high prevalence of these policies at selective institutions, it is increasingly important to understand the implications of test-optional admissions practices. To date, however, there has been limited examination of the relationship between test-optional policies and measures of postsecondary student success.

To fill this gap, this study examines the relationship between test-optional policy adoption and institution-level outcomes, such as retention rates and graduation rates, at selective institutions that implemented test-optional policies prior to the COVID-19 pandemic. Relying on recent advances in difference-in-differences

methods, this analysis suggests that the relationship between test-optional policies and student success varied by institutional selectivity, with some evidence of increased graduation rates at institutions with more competitive admissions practices but decreased graduation rates at less competitive institutions. These findings provide some of the earliest evidence about the implications of voluntary test-optional admissions policies for commonly used institution-level measures of student success.

Undergraduate Test-Optional Admissions Policies

The prior research literature on the effects of test-optional admissions policies is comparatively limited and has primarily focused on the relationship between test-optional policies and outcomes related to applications and the demographic characteristics of admitted and enrolling students. This literature has provided mixed evidence of the effects of test-optional policies that were voluntarily adopted prior to the COVID-19 pandemic. Several early studies found that such policies slightly increased the number of applications submitted but did not result in

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increases in racial/ethnic or socioeconomic diversity among enrolling students (e.g., Belasco et al., 2015; Saboe & Terrizzi, 2019). Meanwhile, more recent work spanning a larger number of test-optional institutions has found that implementation of these policies prior to the COVID-19 pandemic corresponded to modest increases in the number of Pell Grant recipients, underrepresented racially/ethnically minoritized (URM) students, and women (Bennett, 2022).

Yet the implications of prepandemic test-optional policies for postenrollment outcomes have received considerably less attention, in part because data on longer-term outcomes has only been available for a small number of test-optional institutions until comparatively recently. In one of the only published articles on test-optional policies to include outcomes for student success postenrollment, Saboe and Terrizzi (2019) included measures for both retention rate and graduation rate and found no statistically significant relationship between test-optional policy adoption and either outcome. However, the study only included data from a limited timeframe (2009–2014), and the comparison group included an extremely wide array of 4-year institutions, including institutions that are not considered selective in their admissions practices, presenting significant challenges for interpreting the results. Furthermore, the 6-year graduation rate outcome used in Saboe and Terrizzi is not aligned to the treatment years (e.g., 6-year graduation rates for students who entered in 2014 would not have been available at the time of publication). As a result, the relationship between test-optional policies and student success measures remains unclear.

Institution-Level Measures of Student Success

Measures of postsecondary student success can be examined at either the institution or the individual level, with each approach offering distinct types of insights and trade-offs (Mullin, 2012). This study focuses on institution-level measures of student success, which are important given the prominence of these aggregated measures in the public's understanding of student outcomes, in federal and state approaches to accountability and funding, and in policy and advocacy circles. For example, an institution's graduation rate is one of the main data points provided on the consumer-facing website for the U.S. Department of Education's College Scorecard and is displayed conspicuously in online search results for universities (McNeal, 2016). These institution-level student success metrics are frequently used in strategic planning and have even been used as criteria for participation in groups such as the American Talent Initiative (which requires participating institutions to have a graduation rate of 70% or higher), illustrating their salience from an organizational perspective.

There are a variety of channels by which the shift to test-optional admissions could have had implications for institution-level student success measures. Notably, because early adopters of test-optional policies conveyed an interest in a student's "personhood" in the admissions process (Furuta, 2017), one possibility is that the policies could have improved the actual or perceived alignment between students' values and goals and the opportunities available at the institution where they enrolled. Prior work has illustrated the capacity of improved student-institution fit to

increase student satisfaction and retention (e.g., Bowman & Denson, 2014), which could also, in turn, lead to improvements in measures such as graduation rates. Because high school performance historically has been the strongest individual predictor of college academic success (Westrick et al., 2015)—particularly when considered within the context of opportunities available at an applicant's high school using holistic admissions practices (Bastedo et al., 2023)—it is also possible that the transition to test-optional admissions could translate into only minor changes in institution-level student success measures. Alternatively, in circumstances where a substantial share of applicants omitted standardized test scores or where test score nonsubmitters had dramatically lower scores than the typical enrollee, the loss in information available for consideration in admissions decisions could contribute to declines in institution-level student success measures. Such declines could occur if, for instance, institutions admitted a higher share of students who would benefit from greater academic supports than they expected or were able to adequately serve with available resources.

Research Questions

To advance the field's understanding of test-optional policies, this study assesses the relationship between test-optional policy enactment and two common institution-level student success metrics (Wade, 2019): the retention rate for first-year students and the 6-year graduation rate for students in bachelor's degree programs.

Two research questions guide these analyses:

Research Question 1: Among selective private institutions that implemented test-optional policies prior to the COVID-19 pandemic, what is the relationship between test-optional policy enactment and student success metrics such as retention rate and 6-year graduation rate?

Research Question 2: To what extent do the relationships between test-optional policy implementation and retention/graduation rate vary based on an institution's level of selectivity in admissions?

Methods

Data Sources and Measures

I primarily use institution-level data from the U.S. Department of Education's Integrated Postsecondary Education Data System (IPEDS) for cohorts of students who entered between 2002–2003 and 2015–2016. This range of years begins several years prior to a sharp uptick in test-optional policy adoptions in the mid-2000s and concludes with one of the most recent years for which 6-year graduation rates are available.¹

The main outcomes of interest from IPEDS include the institution-level first-year retention rate for full-time students and the 6-year graduation rate for first-time, full-time students in a bachelor's degree program, both overall and by gender and race/ethnicity. The 6-year graduation rate reflects receipt of a bachelor's degree from the institution where the student initially enrolled. As a result, students who transferred elsewhere and earned a bachelor's degree from a different institution within

6 years are treated as nongraduates in their original institution's graduation rate.

Institution Sample

Because private institutions accounted for the overwhelming share of early test-optional adopters (Furuta, 2017) and most institutions at least temporarily dropped testing requirements during the COVID-19 pandemic, I restrict the sample to selective private institutions that enacted or announced test-optional policies prior to 2020. Thus, all institutions in the sample voluntarily adopted test-optional policies prior to the pandemic but differed in terms of the timing of their policy enactment. For information on test-optional policies, this study relies on a detailed data set that includes validated dates of actual policy implementation (Bennett, 2022).

Although popular media coverage of test-optional policies tends to disproportionately focus on a small number of highly exclusive institutions (Burd, 2024), institutions that adopted test-optional policies have spanned a wide range of selectivity levels—even prior to the pandemic. To measure admissions selectivity, I rely on the Barron's competitiveness index from 2003, which corresponds to the first year of data used for this study (i.e., 2002–2003 college entrants). For this study, the “more competitive” designation corresponds to institutions that were classified in Barron's as “most competitive,” “highly competitive,” or “very competitive,” and the “less competitive” designation corresponds to institutions that were classified in Barron's as “competitive” or “less competitive.” Examples of institutions in the more competitive category include Wesleyan University (18% acceptance rate for 2015–2016 entrants), Wake Forest University (30% acceptance rate), and Brandeis University (33% acceptance rate). Examples of institutions in the less competitive category include The New School (60% acceptance rate for 2015–2016 entrants), Guilford College (61% acceptance rate), and Hofstra University (62% acceptance rate).

Analytic Strategy

To examine the relationship between test-optional policy adoption and institution-level measures of student success, I use a difference-in-differences analytic approach that fundamentally compares changes in outcomes across two groups of institutions before and after policy adoption. In this study, the two groups of institutions include those that first implemented test-optional policies for students entering in 2005–2006 through 2015–2016 and those that first implemented test-optional policies after 2015–2016 but had announced such policies no later than December 2019. Because all data used in the study correspond to students who entered in academic years 2002–2003 through 2015–2016, the institutions that implemented test-optional policies for students entering between 2005–2006 and 2015–2016 comprise the treatment group, and the institutions that had not yet enacted their test-optional policies comprise the comparison group. For brevity, the article refers to the treatment group as “test-optional by 2015–2016” and the comparison group as “test-optional later (pre-COVID).”

Historically, researchers have commonly relied on a two-way fixed-effects (TWFE) model for difference-in-differences analyses. However, recent advances in the difference-in-differences literature in econometrics have illustrated the potential for TWFE estimates to be biased in scenarios where there is variation in treatment timing and heterogeneous treatment effects (e.g., De Chaisemartin & d'Haultfoeuille, 2023; Goodman-Bacon, 2021; Roth et al., 2023). Therefore, I use the Callaway and Sant'Anna (2021) difference-in-differences estimator (CSDID), which is designed to account for the type of staggered treatment adoption that has characterized the rollout of test-optional admissions policies.² CSDID emphasizes a causal parameter described as the “group-time average treatment effect” (Callaway & Sant'Anna, 2021), in which the group corresponds to the time period of initial treatment. In addition to producing individual estimates for each time period, CSDID also allows for the aggregation of estimates for multiple groups and facilitates the calculation of dynamic treatment effects in an event-study format.

The group-specific average treatment effects on the treated (ATT) from Callaway and Sant'Anna (2021) are defined using the following equation:

$$ATT(g, t) = E[Y_t - Y_{g-1} | X, G_g = 1] - E[Y_t - Y_{g-1} | X, C = 1], \quad (1)$$

where Y is an outcome measure of interest, g refers to groups of institutions with the same test-optional implementation year, t refers to time in years, G represents the first time period in which the group is treated, C represents an institution's presence in the comparison group, and X denotes a set of covariates. Thus, the term $E[Y_t - Y_{g-1} | X, G_g = 1]$ indicates the change in the outcome observed among the institutions that were test-optional by 2015–2016 (i.e., the treatment group), and the term $E[Y_t - Y_{g-1} | X, C = 1]$ indicates the change for institutions that went test-optional later but still pre-COVID (i.e., the comparison group that was never treated during the years of data used). After using Equation 1 to calculate separate estimates for each group g and time period t , I aggregate the estimates in two different ways. First, I combine all group-time average treatment effects to produce a single estimate across all treated institutions in the posttreatment period. Second, I also estimate dynamic treatment effects based on the event-time e relative to the test-optional policy enactment (e.g., pooling all estimates that correspond to a given number of years before or after test-optional policy enactment). These dynamic treatment estimates are used in event-study figures to help examine potential variation in estimates over time and assess the viability of the parallel trends assumption.

Results

Descriptive Characteristics

Table 1 provides an overview of the private institutions included in the analytic sample using characteristics that correspond to students entering in the 2004–2005 academic year. Of the 188 institutions, 89 enacted test-optional policies between 2005–2006 and 2015–2016, and the remaining

Table 1
Institutional Characteristics in 2004–2005 by Test-Optional Status and Admissions Competitiveness

	Overall		More Competitive		Less Competitive	
	Test-Optional by 2015–2016	Test-Optional Later (Pre-COVID)	Test-Optional by 2015–2016	Test-Optional Later (Pre-COVID)	Test-Optional by 2015–2016	Test-Optional Later (Pre-COVID)
Full-time-equivalent undergraduates (<i>n</i>)	2,588 (2,065)	2,393 (2,004)	2,505 (1,809)	2,376 (1,810)	2,738 (2,483)	2,405 (2,140)
Acceptance rate (%)	66.2 (12.8)	70.4 (13.7)	62.6 (12.7)	67.3 (16.4)	72.8 (10.3)	72.5 (11.3)
Verbal 75th percentile (scaled to SAT)	625 (53)	611 (58)	651 (42)	655 (40)	578 (36)	581 (49)
Math 75th percentile (scaled to SAT)	617 (46)	598 (52)	641 (35)	638 (41)	576 (34)	570 (39)
Undergraduate Pell Grant recipients (%)	21.8 (11.5)	27.1 (11.8)	17.8 (6.8)	21.1 (9.3)	29.2 (14.4)	31.1 (11.7)
Among first-time, full-time students . . .						
Took out a student loan (%)	65.0 (14.7)	65.7 (15.3)	60.2 (12.2)	57.5 (15.1)	73.4 (15.1)	71.3 (12.8)
Women (%)	60.9 (14.9)	62.1 (14.0)	58.9 (12.5)	60.6 (13.3)	64.7 (18.0)	63.0 (14.5)
Asian/Pacific Islander students (%)	3.2 (3.0)	4.2 (4.3)	3.7 (3.0)	5.2 (4.8)	2.3 (2.7)	3.6 (3.8)
Black students (%)	5.1 (4.1)	7.8 (8.6)	4.1 (2.8)	3.5 (2.3)	6.8 (5.4)	10.7 (10.1)
Hispanic/Latinx students (%)	4.2 (3.6)	6.8 (7.5)	4.0 (3.5)	5.0 (5.5)	4.5 (3.8)	8.1 (8.4)
Native American students (%)	0.4 (0.4)	0.5 (0.6)	0.4 (0.4)	0.5 (0.5)	0.3 (0.4)	0.5 (0.7)
White students (%)	77.7 (12.9)	71.1 (18.6)	79.2 (12.6)	76.9 (13.8)	74.9 (13.2)	67.2 (20.4)
Number of institutions	89	99	57	40	32	59

Note. Table displays averages as of the 2004–2005 academic year, with standard deviations in parentheses. “Test-Optional by 2015–2016” includes private, nonprofit institutions that first implemented test-optional policies between 2005–2006 and 2015–2016; “Test-Optional Later (Pre-COVID)” includes private, nonprofit institutions that first implemented test-optional policies after 2015–2016 and had announced those policies prior to January 2020. “More competitive” institutions were listed as “most competitive,” “highly competitive,” or “very competitive” for admissions in the 2003 edition of Barron’s Profiles of American Colleges; “less competitive” institutions were listed as “competitive” or “less competitive.”

99 enacted such policies in 2016–2017 or later (but had announced such decisions prior to January 2020). In general, these institutions were small, averaging approximately 2,500 undergraduate students. The two groups of institutions were relatively comparable on many observable dimensions, although there are some notable differences between the institutions that were test-optional by 2015–2016 and those that became test-optional later (pre-COVID). For instance, institutions that were test-optional by 2015–2016 had a somewhat lower acceptance rate overall (66% vs. 70%), a lower share of students receiving Pell Grants (22% vs. 27%), and a higher share of White students (78% vs. 71%) than their counterparts. As shown in the four rightmost columns of Table 1, a higher share of institutions that were test-optional by 2015–2016 had more competitive admissions practices (57 of 89, or 64%)

than did the institutions that were test-optional later (40 of 99, or 40%).

Overall Institution-Level Student Success Metrics

Table 2 provides the overall results from the difference-in-differences regression models that examine the relationship between test-optional policy adoption and student success metrics. For reference, Column 1 displays averages for each key outcome measure for students who entered the institution in the 2004–2005 academic year, which was 1 year prior to the earliest test-optional adoption year among the institutions examined. For that baseline group, the set of private institutions examined in the study had a first-year retention rate of 80% and an overall 6-year bachelor’s graduation rate of 66%. The two

Table 2
Relationship Between Test-Optional Policy Adoption
and Overall Student Success Metrics

	(1) Baseline Average	(2) CSDID Aggregate Estimate of Test-Optional Policy	(3) CSDID Aggregate Estimate of Test-Optional Policy
First-year retention rate (full-time students)	79.9	-0.596 (0.607) [.326]	-0.145 (0.612) [.813]
6-year graduation rate (first-time, full-time students)			
Overall	65.8	-0.369 (0.718) [.608]	0.192 (0.775) [.804]
Men	62.6	-0.096 (0.753) [.898]	0.330 (0.947) [.727]
Women	68.1	-0.161 (0.875) [.854]	0.470 (0.886) [.595]
White students	67.5	-1.733 ⁺ (0.944) [.066]	-0.180 (0.847) [.832]
URM students	56.9	2.123 (1.819) [.243]	2.223 (1.495) [.137]
Black students	55.0	2.908 (2.357) [.217]	1.939 (2.111) [.358]
Hispanic/Latinx students	60.2	-1.554 (2.722) [.568]	1.068 (2.279) [.639]
Pretreatment covariates		Yes	No
Number of institutions		188	188

Note. Baseline average corresponds to students entering in the 2004–2005 academic year, which was prior to test-optional policy enactment at all institutions in the analysis. Table presents point estimates from separate models, with standard errors in parentheses and *p* values in brackets. Estimates are expressed in percentage points. Pretreatment covariates include the number of full-time equivalent undergraduate students, expenditures on instructional activities, expenditures on student services, tuition and fees, an indicator for no-loan programs, and proportions of students by gender/race/ethnicity/Pell statuses. CSDID = Callaway and Sant’Anna (2021) difference-in-differences, with estimates produced using the Stata *csdid* command (Rios-Avila et al., 2023); URM = historically underrepresented racially/ethnically minoritized (Black, Hispanic/Latinx, or Native American).
⁺*p* < .10.

rightmost columns include aggregate difference-in-differences estimates of the relationship between test-optional policy enactment and the outcome measure, with one column showing estimates from the model including pretreatment covariates

(Column 2) and the other relying on the model without pretreatment covariates (Column 3). Because the event-study analyses do not suggest that the viability of parallel trends assumption is conditional on the inclusion of pretreatment covariates and due to additional interpretation challenges introduced by the inclusion of pretreatment covariates in difference-in-differences models (Huntington-Klein, 2021), the preferred estimates are the ones in Column 3 and do not include pretreatment covariates.

Overall, the point estimates in Table 2 for the preferred specification suggest that the enactment of test-optional policies was not associated with statistically significant changes in institution-level retention or graduation rates. For outcome measures that cover a significant share of the student body (retention rate, graduation rate overall, graduation rate for men, graduation rate for women, graduation rate for White students), these null results are relatively precise, with 95% confidence intervals that rule out declines of more than 1.3 percentage points to 1.9 percentage points and increases of more than 1.1 percentage points to 2.2 percentage points. Graduation rates for other racial/ethnic groups shown in Table 2 were subject to greater variability, in part because such groups comprise a relatively small number of students at the institutions examined. As a result, estimates for the relationship between test-optional policies and graduation rates for URM students (i.e., Black, Hispanic/Latinx, and Native American students combined), Black students, and Hispanic/Latinx students are not statistically significant but have 95% confidence intervals that leave open the possibility of meaningful changes.

Results from the event-study model are provided in Figure 1. The four plots in Figure 1 illustrate that there were no statistically significant differences in trends in outcomes between the treatment and comparison groups in the 4 years prior to test-optional policy adoption. Although it is not possible to definitively confirm the identifying assumption of parallel trends that undergirds difference-in-differences analysis, the absence of statistically significant pretrends is consistent with the expectation that trends in average outcomes between the treatment and comparison groups would have been parallel in the absence of treatment. The event-study plots in Figure 1 further show that in each of the first 5 years following test-optional policy adoption, there were not statistically significant differences detected across any of the four outcomes displayed (first-year retention rate, 6-year graduation rate overall, 6-year graduation rate for men, and 6-year graduation rate for women) when examining all institutions in the analytic sample combined.

Variation by Admissions Competitiveness

Because the set of private institutions that adopted test-optional policies during this period spanned a wide range of selectivity levels, Table 3 separately examines the relationship between test-optional policies and student success metrics at institutions based on whether they had more competitive admissions (e.g., Wesleyan University) or less competitive admissions (e.g., Hofstra University). Descriptively, institutions with more competitive admissions had substantially higher baseline averages for student success metrics than institutions with less competitive

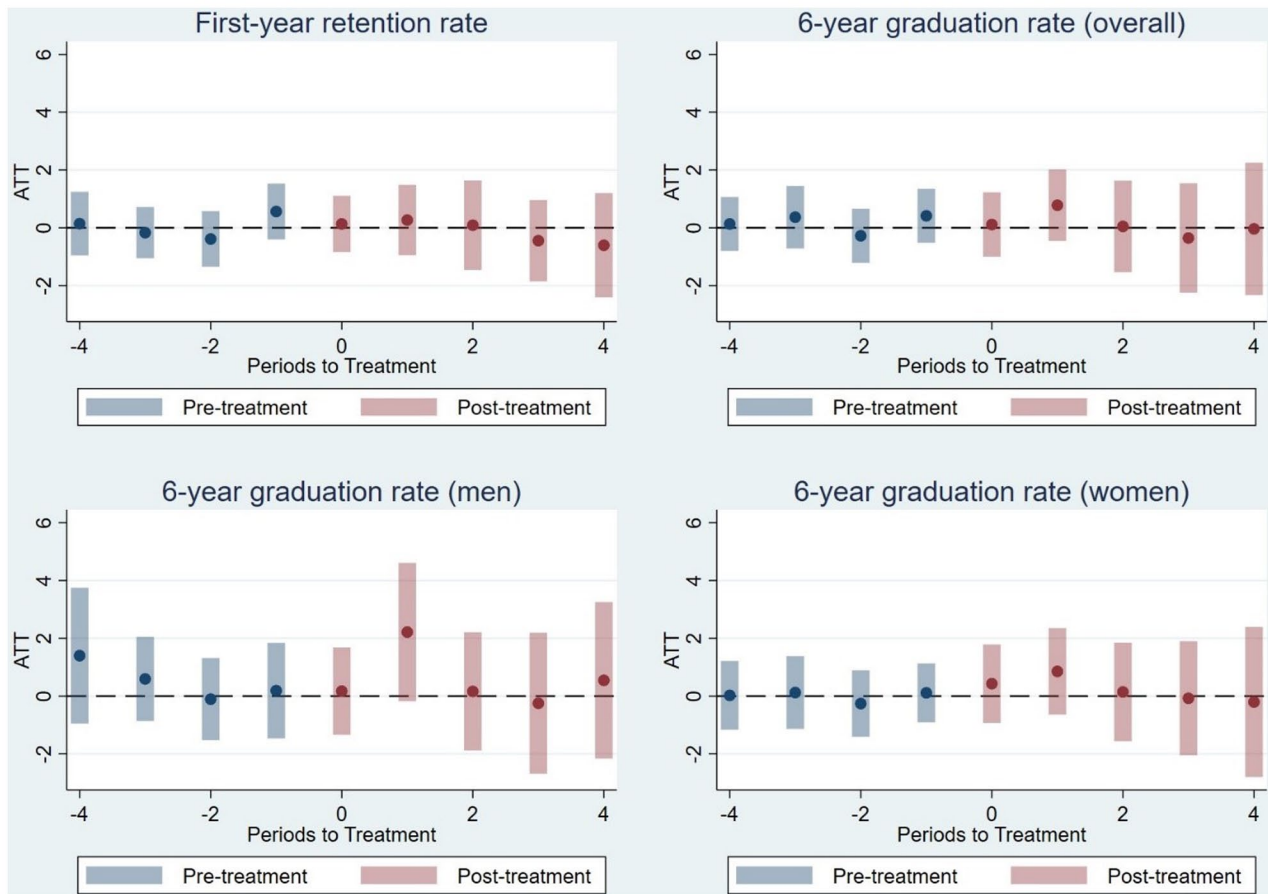


FIGURE 1. Event-study plots of relationship between test-optional admissions policies and student success metrics.

Note. This figure provides event-study estimates for the relationship between test-optional admissions policy enactment at private nonprofit institutions that first implemented such policies between 2005–2006 and 2015–2016 relative to later adopting institutions that announced test-optional policies prior to January 2020. “Periods to Treatment” refers to the number of years relative to the test-optional admissions policy (e.g., a value of 0 represents the first year of data corresponding to students who entered the institution when test-optional admissions policies were in effect). First-year retention rate is based on full-time students, and 6-year graduation rates are based on first-time, full-time students enrolled for a bachelor’s degree. Estimates produced using the Stata *csdid* command (Rios-Avila et al., 2023). Estimates are expressed in percentage points. The display range for the figure is constrained to periods –4 through 4. ATT = average treatment effect on the treated.

admissions (e.g., the overall 6-year graduation rate was 74% at more competitive institutions but 57% at less competitive institutions for 2004–2005 entrants).

At institutions with more competitive admissions, the difference-in-differences results in Table 3 indicate that the introduction of a test-optional policy was associated with improvements in student success across multiple groups. Specifically, I find statistically significant increases in the 6-year graduation rate for all students combined (1.6 percentage points), men (2.1 percentage points), women (2.0 percentage points), and White students (2.0 percentage points). Additionally, test-optional policy adoption at more competitive institutions corresponded to an increase of 3.8 percentage points in terms of 6-year graduation rates for all URM students combined, although this estimate is not statistically significant ($p = .071$). Event-study plots in Figure 2 illustrate this relationship over time at institutions that have more competitive admissions, with relatively similar point estimates in the first five posttreatment cohorts on all four

outcomes shown. (For additional event-study plots examining estimates both overall and by institutional admissions competitiveness, see Appendix Tables 1–4, available on the journal website.)

In contrast, I find that test-optional policy enactment at institutions with less competitive admissions was generally not associated with statistically significant changes on the student success measures included in the study. Among these less competitive institutions, the sole exception is a statistically significant difference in the 6-year graduation rate for White students, which declined 2.5 percentage points following test-optional policy introduction (a 4% decline relative to the baseline average). Several other point estimates for student success measures at institutions with less competitive admissions were negative, but they are not statistically significant at conventional levels.

When considering these findings, it is important to bear in mind several constraints. For instance, institution-level rates do not distinguish between the number of students covered, so rates for smaller groups may be subject to large variability. Moreover,

Table 3
Relationship Between Test-Optional Policy Adoption and Overall Student Success Metrics by Admissions Competitiveness

	More Competitive Institutions			Less Competitive Institutions		
	(1) Baseline Average	(2) CSDID Aggregate Estimate of Test-Optional Policy	(3) CSDID Aggregate Estimate of Test-Optional Policy	(4) Baseline Average	(5) CSDID Aggregate Estimate of Test-Optional Policy	(6) CSDID Aggregate Estimate of Test-Optional Policy
First-year retention rate (full-time students)	85.2	0.832 (0.644) [.196]	0.915 (0.671) [.173]	74.4	-2.555 ⁺ (1.464) [.081]	-1.301 (1.047) [.214]
6-year graduation rate (first-time, full-time students)						
Overall	74.3	0.969 (0.784) [.216]	1.627* (0.788) [.039]	56.7	-0.978 (1.882) [.603]	-1.172 (1.300) [.367]
Men	71.7	2.745 (1.933) [.156]	2.069* (0.954) [.030]	52.6	0.939 (1.898) [.621]	-0.654 (1.607) [.684]
Women	76.3	1.061 (0.938) [.258]	1.997* (0.902) [.027]	59.4	-1.440 (2.423) [.552]	-1.207 (1.382) [.383]
White students	75.2	0.997 (1.116) [.372]	2.010* (0.878) [.022]	59.3	-2.665 (2.545) [.295]	-2.457* (1.129) [.030]
URM students	66.7	5.307* (2.559) [.038]	3.792 ⁺ (2.102) [.071]	46.4	0.242 (4.147) [.954]	0.772 (2.290) [.736]
Black students	66.8	3.836 (3.446) [.266]	2.975 (2.848) [.296]	42.5	-1.092 (5.367) [.839]	0.238 (2.836) [.933]
Hispanic/Latinx students	65.9	7.684* (3.725) [.039]	4.450 (2.835) [.116]	54.1	-1.452 (6.004) [.809]	-2.873 (4.028) [.476]
Pretreatment covariates		Yes	No		Yes	No
Number of institutions		97	97		91	91

Note. Baseline average corresponds to students who entered in the 2004–2005 academic year, which was prior to test-optional policy enactment at all institutions in the analytic sample. “More competitive” institutions were listed as “most competitive,” “highly competitive,” or “very competitive” for admissions in the 2003 edition of Barron’s Profiles of American Colleges; “less competitive” institutions were listed as “competitive” or “less competitive.” The table presents point estimates from separate models, with standard errors in parentheses and *p* values in brackets. Estimates are expressed in percentage points. Pretreatment covariates include the number of full-time equivalent undergraduate students, expenditures on instructional activities, expenditures on student services, tuition and fees, an indicator for the presence of a no-loan program or other loan-reduction initiative, and proportions of students by gender/race/ethnicity/Pell statuses. CSDID = Callaway and Sant’Anna (2021) difference-in-differences, with estimates produced using the Stata *csdid* command (Rios-Avila et al., 2023); URM = historically underrepresented racially/ethnically minoritized (Black, Hispanic/Latinx, or Native American).

⁺*p* < .10. **p* < .05.

although first-year retention rates and 6-year graduation rates at the institution level are widely used indicators of student success, a variety of other outcome measures are worth examining. To fully assess the impacts of test-optional policies at a more granular level, it would be quite valuable to consider a suite of additional measures (e.g., undergraduate grade point averages, credits

earned, postcollege earnings) and imperative to undertake analyses using student-level rather than institution-level data. Additionally, the institutions that adopted test-optional policies between 2005–2006 and 2015–2016 did so voluntarily, frequently announcing policies well in advance of their implementation, and typically continued to receive test scores from the

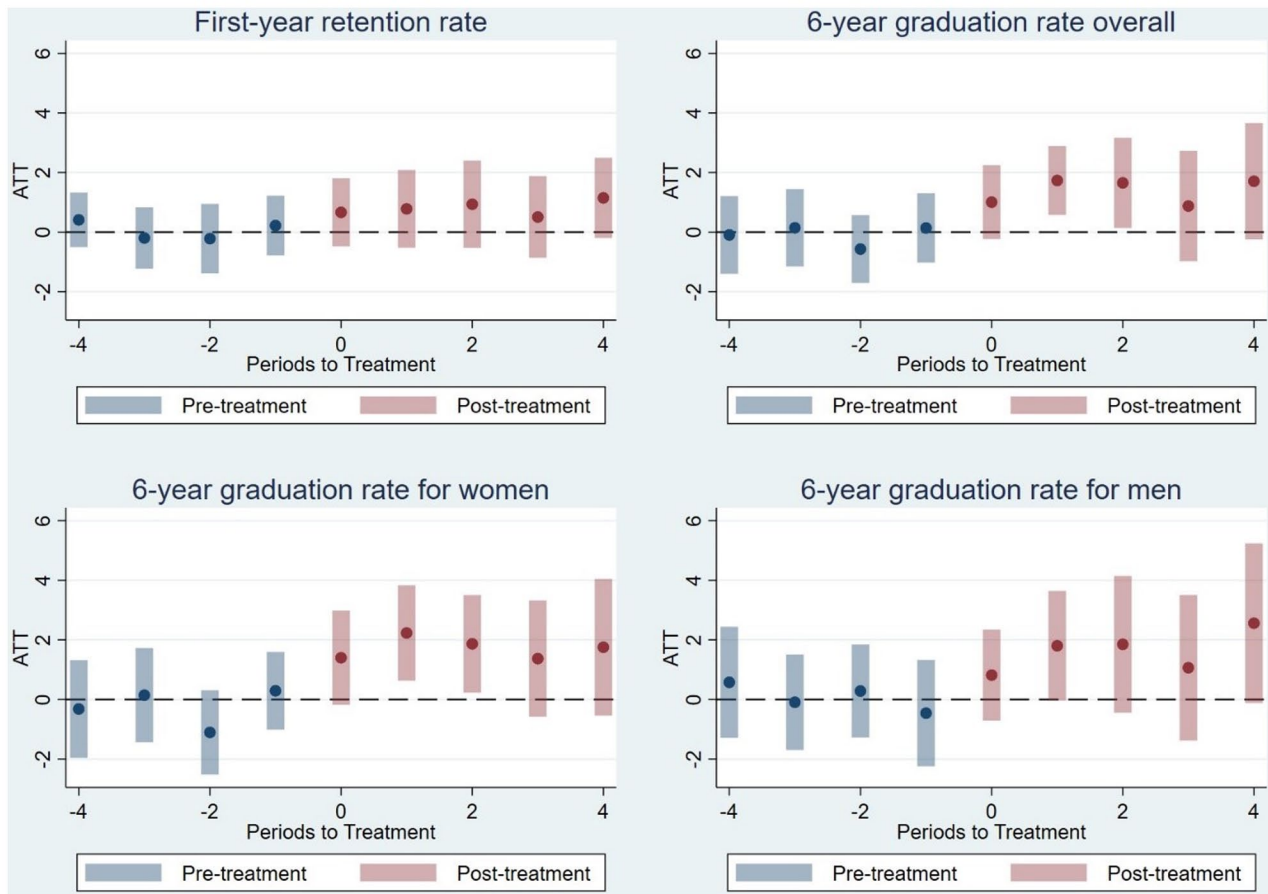


FIGURE 2. Event-study plots of relationship between test-optional admissions policies and student success metrics at institutions with more competitive admissions.

Note. This figure provides event-study estimates for the relationship between test-optional admissions policy enactment at private nonprofit institutions that first implemented such policies between 2005–2006 and 2015–2016 relative to later adopting institutions that announced test-optional policies prior to January 2020. “More competitive” institutions were listed as “most competitive,” “highly competitive,” or “very competitive” for admissions in the 2003 edition of Barron’s Profiles of American Colleges. “Periods to Treatment” refers to the number of years relative to the test-optional admissions policy (e.g., a value of 0 represents the first year of data corresponding to students who entered the institution when test-optional admissions policies were in effect). First-year retention rate is based on full-time students, and 6-year graduation rates are based on first-time, full-time students enrolled for a bachelor’s degree. Estimates produced using the Stata *csdid* command (Rios-Avila et al., 2023). Estimates are expressed in percentage points. The display range for the figure is constrained to periods –4 through 4. ATT = average treatment effect on the treated.

majority of applicants even when test-optional policies were in effect. The experiences at such institutions are likely to differ meaningfully from those of institutions that were forced to swiftly pivot to test-optional conditions in response to the widespread cancellation of standardized tests during COVID-19. Furthermore, grading policies at both the high school and undergraduate levels have shifted in recent years (e.g., Chen & Sanchez, 2024; Tillinghast et al., 2023), suggesting caution in overinterpreting these findings for more recent test-optional policies.

Robustness Check Using Placebo Outcomes

Appendix Table 1, available on the journal website, provides the results of a difference-in-differences analysis that uses placebo

outcomes that are not anticipated to vary based on test-optional policy adoption: the total price for students living on campus and various types of expenditures per full-time equivalent student (instructional, student services, research). For all four placebo outcomes, no statistically significant relationships are evident at conventional levels. This finding helps increase confidence that the model is unlikely to arbitrarily result in statistically significant results for reasons unrelated to test-optional policy adoption.

Robustness Check Excluding Cohorts Potentially Affected by COVID-19

Appendix Table 2, available on the journal website, provides estimates for 6-year graduation rates that exclude the 2014–2015

and 2015–2016 entering cohorts, whose 6-year graduation windows partially include the COVID-19 pandemic. The results of this robustness check are substantially similar to the primary findings, confirming that the results are not especially sensitive to the experiences of students who may have been enrolled during COVID-19.

Discussion

When looking across a wide variety of selective private institutions that implemented test-optional policies prior to the COVID-19 pandemic, this study finds that such policies were not associated with statistically significant changes overall in two common institution-level student success metrics: first-year retention rates and 6-year graduation rates. Yet these aggregate results appear to reflect diverging experiences across institutions with varying levels of selectivity: More competitive institutions exhibited roughly 2 percentage point increases in graduation rates following test-optional policy adoption across several student groups, and less competitive institutions showed a 2 percentage point decline in graduation rates for White students and little evidence of shifts for other students. Taken together, these findings highlight the potential for heterogeneity in the relationship between test-optional policy adoption and institution-level student success outcomes. These findings contribute to a growing literature on test-optional admissions, including recent work that focuses on variation in the attributes of test-optional policies that are adopted (Rosinger et al., 2024) and the experiences of admissions professionals tasked with implementing test-optional policies (Slay et al., 2022; Wong et al., 2023).


Although this study cannot isolate the mechanisms that might help explain the increase in graduation rates at more competitive institutions, several possible explanations seem worthy of examination in future research. First, as outlined earlier, test-optional policies could have improved the student-institution fit for some students at more competitive institutions, which could have translated into increases in graduation rates (or reductions in transfer-out rates, which would have the same net effect in the IPEDS data). Second, the rise in graduation rates under test-optional policies could reflect more competitive institutions' increased willingness to admit students who performed exceptionally well in high school coursework but whose standardized test scores would have made them less viable candidates under test-requiring admissions cycles. Third, it is possible that some of the more competitive institutions accompanied their test-optional policy rollouts with additional student supports, in which case, the estimates would reflect the suite of changes rather than test-optional policy adoption in isolation.

The negative relationship between test-optional policy adoption and graduation rates for White students at less competitive institutions suggests that test-optional practices at those institutions may warrant greater attention than they have received to date. Because private institutions with less competitive admissions tend to serve students with different academic backgrounds and needs than their more competitive counterparts, they had lower overall graduation rates even prior to test-optional adoption, making further declines all the more noteworthy. Two potential explanations for this decline in graduation rates at less

competitive institutions seem particularly valuable to investigate. First, following test-optional adoption, it is possible that more competitive institutions admitted a larger number of students who had a very high likelihood of college graduation but would have enrolled at less competitive institutions in the absence of a test-optional policy (e.g., due to relatively low standardized test scores). Such an outcome would be emblematic of the type of “cream-skimming” that has been examined in other educational contexts (Altonji et al., 2015). Second, after implementing test-optional policies, institutions with less competitive admissions may have begun enrolling a greater share of students who had been unlikely to have attended a selective 4-year institution otherwise (e.g., students whose other primary options might have been an open-access institution or no college attendance at all). From this perspective, institutions with less competitive admissions may have expanded their function as sites of college access after going test-optional, in the process experiencing a moderate decline in graduation rates.

As selective institutions consider whether to maintain or refine their admissions strategies, these results highlight the importance of examining the relationship between test-optional policies and longer-term outcomes. The findings illustrate the potential for meaningful variation in institutions' experiences with test-optional policies based on their institutional position, reinforcing the importance of carefully evaluating whether a particular test-optional strategy is meeting the institution's needs and how admissions professionals evaluate other application elements in the absence of test scores (Park et al., 2025). Ultimately, these institutional decisions about test-optional admissions policies reflect broader questions about which students they are seeking to serve, how they conceptualize merit and deservingness, and what outcomes they prioritize.

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¹Although some more recent data are available for student success measures in IPEDS (e.g., retention rates), this study exclusively focuses on prepandemic test-optional adopters given the difficulty of directly comparing prepandemic and postpandemic experiences with the policies. For detailed explorations that focus on the unique context of test-optional policy implementation during the pandemic, see the emerging body of literature (e.g., Bastedo et al., 2026; Edwards et al., 2023; Rosinger et al., 2024).

²Specifically, I rely on the *csdid* package in Stata from Rios-Avila and colleagues (2023) and use the doubly robust estimation method with inverse probability weighting (Sant'Anna & Zhao, 2020) for the models that include pretreatment covariates. Other estimation methods available in *csdid* produce results that are qualitatively similar (estimates available on request).

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