Losing Eligibility, Losing Ground? The Consequences of Financial Aid Eligibility Loss Later in College: Evidence from the TEXAS Grant

May 4, 2026

Abstract

This paper examines how financial aid renewal rules shape student outcomes by studying loss of eligibility after the second- and third-year renewal checkpoints in the need-based TEXAS Grant program. Using administrative data from Texas and a multidimensional difference-in-discontinuities design that exploits joint GPA and credit completion requirements, I estimate how losing eligibility later in college affects persistence, enrollment choices, and degree attainment. I find that the effects of eligibility loss depend on both its timing and the specific requirement that triggers it. When students lose eligibility after the second year, they are less likely to persist and enroll full-time in the following year, but these effects fade and do not translate into differences in degree completion. By contrast, when eligibility is lost after the third year, there are no changes in immediate persistence or enrollment intensity, but students are 5.5 percentage points less likely to graduate on time and 3.8 percentage points less likely to complete a degree. At both benchmarks, effects are driven primarily by students who fall just short of only the credit completion requirement, even though they have strong GPAs and remain in good academic standing. These findings highlight that renewal policy design—particularly the choice of credit-based thresholds—should be carefully considered, as these rules can negatively affect degree attainment among otherwise successful students.

1 Introduction

Higher education in the U.S. is supported through a complex system of financial aid programs, including federal grants, state and institutional scholarships, and student loans. The rising cost of college has made financial aid an even more critical tool for supporting access and affordability. Over the past several decades, tuition has outpaced income growth, making it more difficult for families to cover expenses out of pocket, thereby increasing their reliance on financial aid (Ma et al., 2024). To offset these rising costs, federal and state policymakers have expanded financial aid programs, keeping the net cost of attendance relatively stable (NCES, 2023).

While these efforts have mitigated some of the financial burden on students, they have also made financial aid a central component of how students afford college. In the 2022–23 academic year, 85.2% of first-time undergraduate students received some form of financial aid, averaging \$12,997 in grants and \$7,709 in loans (NCES, 2023). Moreover, nearly half of all undergraduates received a Pell Grant, highlighting the extent of financial need among college students (NCES, 2023). As a result, many rely on financial aid not only to enroll, but to remain enrolled and make steady progress toward a degree.

This reliance leaves students particularly exposed to disruptions in financial aid. Even relatively small or unexpected changes can alter students' ability to cover tuition and living expenses, forcing them to adjust their academic plans. For example, they may respond by increasing work hours, reducing course loads, or exiting college altogether. In this way, the stability of financial aid—not just its initial availability—plays a central role in shaping students' academic trajectories.

These disruptions can arise from several sources. Financial aid policies are subject to change at the federal and state levels, with recent reductions in state grant programs and shifting federal policies raising concerns about the stability of aid over time.[1] Administrative barriers can also delay or disrupt aid delivery, with recent delays in processing the Free Application for Federal Student Aid (FAFSA) providing a salient example. Even when students remain eligible, the complexity of the renewal process can discourage reapplication or lead to missed deadlines (Bettinger et al., 2012; Kofoed, 2017).

A particularly important source of instability—and one that this paper focuses on—arises from renewal requirements, which typically entail maintaining a minimum cumulative GPA and meeting credit-based progress requirements to retain eligibility. Federal regulations, for example, require students to demonstrate Satisfactory Academic Progress (SAP), defined as maintaining at least a 2.0 cumulative GPA and completing at least 67% of attempted credits.

[1]For instance, Indiana's primary need-based grant reduced award amounts for most students beginning in fall 2025 (Indiana Commission for Higher Education, 2025).

While these requirements are intended to promote academic progress and accountability, they also lead to substantial rates of ineligibility. For example, nearly 40% of Pell Grant recipients at community colleges fail to meet first-year SAP standards and lose eligibility (Schudde and Scott-Clayton, 2016). Eligibility loss is also common in state aid programs; for instance, 35% of initial recipients lose the Georgia HOPE Scholarship by the second renewal checkpoint (GA ORPA, 2024).

Despite extensive research showing that financial aid receipt increases enrollment, persistence, and completion (Castleman and Long, 2016; Denning et al., 2019), relatively little is known about how students respond to disruptions in aid. In this paper, I investigate the consequences of losing eligibility due to unmet renewal requirements in the Toward EXcellence, Access, and Success (TEXAS) Grant program. While prior research has focused primarily on first-year renewal benchmarks in merit-based programs, this study examines eligibility loss in a need-based program after the second and third years of college, providing new evidence on how students respond when financial support is put at risk later in their academic careers. In addition, I estimate effects separately for students who fall short of only the credit completion threshold, only the GPA threshold, or both, allowing me to examine how effects vary by the source of ineligibility.

I find that loss of TEXAS Grant eligibility leads to meaningful disruptions that differ with both the source of ineligibility and the timing of loss. At the second-year renewal checkpoint, ineligibility results in declines in third-year persistence and enrollment intensity, but does not affect graduation outcomes. In contrast, at the third-year checkpoint, there are no effects on immediate re-enrollment choices, but loss of eligibility substantially lowers six-year graduation rates and overall degree completion. Across both renewal points, the strongest effects occur for students below only the credit completion requirement, despite otherwise strong academic standing. Together, these findings highlight that renewal policy design plays an important role in shaping student outcomes and degree completion and should be carefully considered when designing financial aid programs.

This paper proceeds as follows. Section 2 details the TEXAS Grant program and its renewal criteria. Section 3 reviews the relevant literature and highlights this paper's key contributions. Section 4 describes the data, while Section 5 outlines the empirical strategy. Sections 6 through 8 present the main results, heterogeneity analyses, and robustness checks, respectively. Section 9 concludes by summarizing the main findings and discussing implications for the design of financial aid renewal requirements.

2 TEXAS Grant

2.1 Program Overview

The TEXAS Grant is a statewide, need-based aid program for students attending public universities in Texas that began in the 1999-2000 academic year. To initially qualify for the TEXAS Grant, one must be a Texas resident with financial need and enroll at least three-quarter-time within 16 months of high school graduation.[2] Unlike many other state programs, the TEXAS Grant does not require a minimum high school GPA or SAT/ACT score for eligibility.

The TEXAS Grant operates as a last-dollar scholarship, covering any remaining tuition and required fees after other non-loan federal, state, and institutional aid has been applied. While the program helps reduce the direct cost of attendance, it does not cover living expenses such as room, board, or transportation. Thus, many recipients still rely on loans or other aid to cover these costs. The average annual award is approximately \$6,000, accounting for nearly one-third of a recipient's total financial aid package. Students may receive up to five years of funding as long as they continue to meet program requirements.

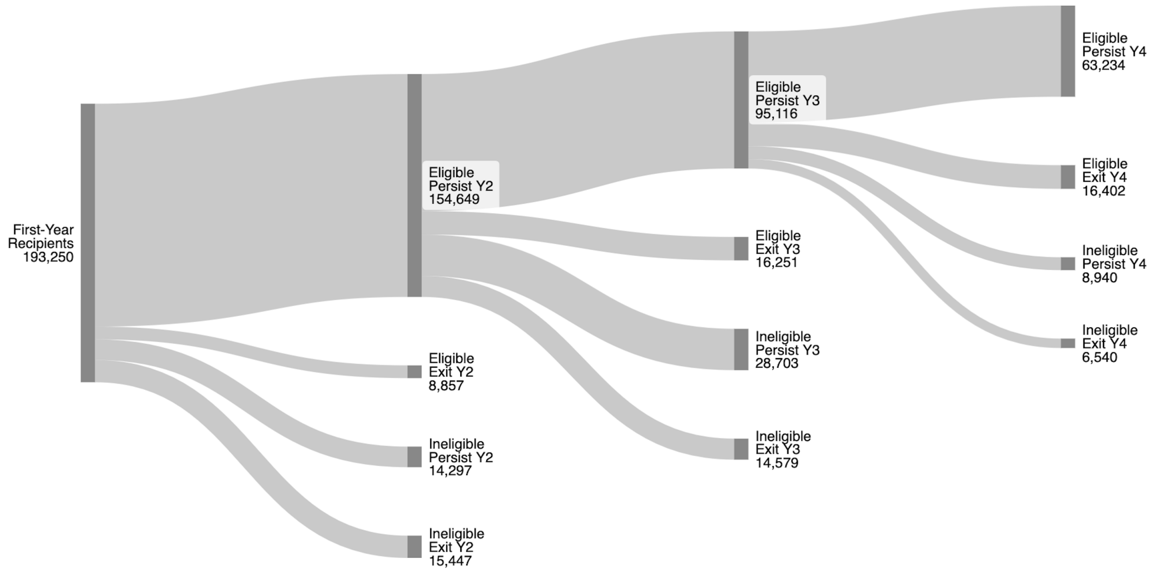
The program is a major component of the state's higher education landscape, operating across all four-year public universities and reaching a large and diverse group of students. In the 2020-21 academic year, nearly 83,000 students—about one in six undergraduates—received TEXAS Grant funding, totaling over \$400 million in state disbursements. More than half of recipients (54%) are Hispanic, and a majority (56%) have an expected family contribution (EFC) of \$0.

2.2 Renewal Requirements and Loss of Eligibility

To retain eligibility for the TEXAS Grant, students must meet renewal requirements at the end of each academic year. After the first year, students must satisfy their institution's SAP standards, which can vary across universities. Beginning in the second year, however, renewal requirements are standardized statewide: all students must maintain a 2.5 cumulative GPA and complete at least 24 credit hours each academic year. Failure to meet either requirement results in loss of eligibility for the grant. These requirements differ from federal eligibility rules and are distinct from those used in other Texas aid programs.

Figure 1 shows that a substantial number of students lose eligibility at each renewal

[2] Students must also be registered for the Selective Service and never have been convicted of a felony or any offense involving a controlled substance. While 95% of recipients enter from high school, students can also qualify if they have earned an associate's degree and pursue a bachelor's within a year of completion; enroll after an honorable discharge from the military; or satisfy additional requirements after beginning their bachelor's degree with the Texas Educational Opportunity Grant. This paper only considers students entering immediately after high school.



Notes: This figure shows the flow of initial TEXAS Grant recipients in the fall 2011–2018 entering cohorts across renewal checkpoints, illustrating transitions in eligibility status and immediate persistence over time.

Figure 1. Flow of TEXAS Grant Recipients

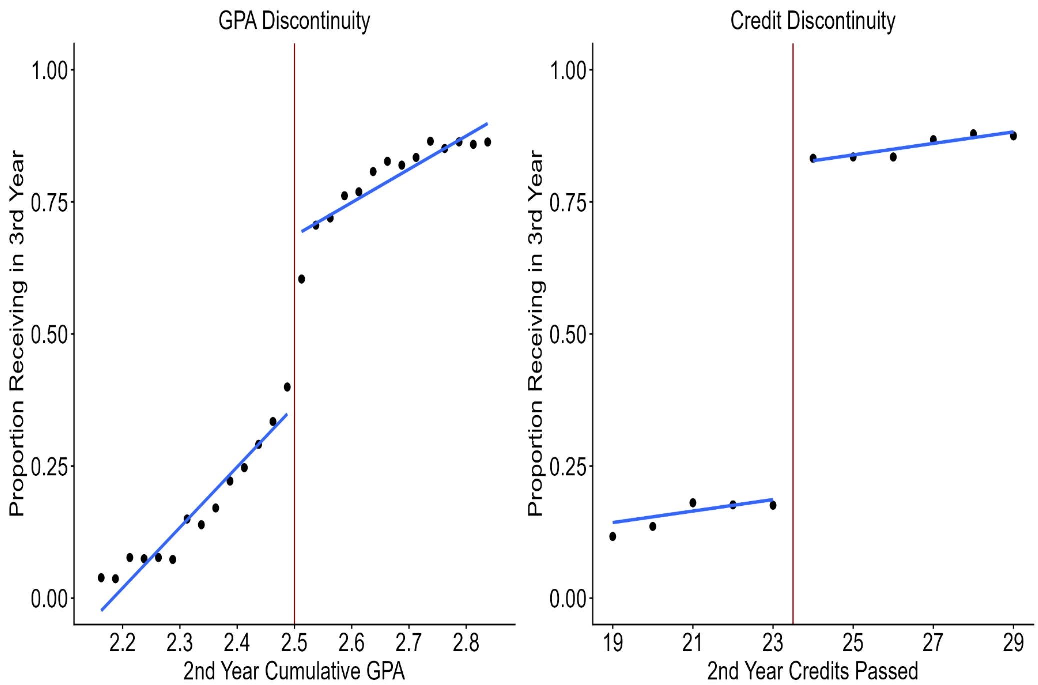
checkpoint. After the first year, 29,744 students lose eligibility, representing approximately 15% of the 193,250 full-time first-year recipients. Eligibility loss is higher at later checkpoints, with 43,282 (28%) students losing eligibility after the second year and 15,480 (16%) after the third year. In total, 88,506 students (46% of first-year recipients) lose eligibility at some point during their first four years of college.

Although eligibility is determined by GPA and credit thresholds, renewal is not perfectly deterministic. Nevertheless, there is a strong relationship between eligibility and subsequent grant receipt. Figure 2 shows that students who fall below a second-year threshold are 30-63 pp less likely to receive the TEXAS Grant in their third year than those who meet the requirements. One reason for this imperfect relationship is the appeals process, which allows some students to retain the grant if they can demonstrate extenuating circumstances. While data on appeals are not available, these patterns show that renewal requirements play a central role in determining continued access to aid, even if they are not strictly binding.

3 Literature Review and Contributions

3.1 Literature Review

This paper contributes to the literature on the consequences of losing financial aid eligibility. When students fail to meet renewal requirements and lose eligibility, their financial aid packages may change in ways that affect persistence, graduation, and academic trajectories.



Notes: This figure plots third-year TEXAS Grant receipt against second-year GPA and credits passed. The GPA (credit) panel restricts to students who satisfy the credit (GPA) requirement. The discontinuity in each figure reflects changes in aid receipt at each eligibility threshold.

Figure 2. Effect of Losing Eligibility on Subsequent TEXAS Grant Receipt

To provide context, this section first reviews prior research on how financial aid receipt affects student outcomes before turning to the existing literature on eligibility loss and related changes in aid.

3.1.1 Financial Aid and Student Outcomes

Research consistently finds that financial aid improves a range of enrollment, persistence, and completion outcomes (Nguyen et al., 2019). Need-based grants, such as the federal Pell Grant, have particularly strong effects on enrollment and degree attainment (Goldrick-Rab et al., 2016; Castleman and Long, 2016; Denning et al., 2019; Denning, 2019). Evidence on the TEXAS Grant is more mixed: Villarreal (2018) documents positive impacts on degree completion and credit accumulation, while Montenegro (2020) and Galperin (2024) find limited effects on academic outcomes.

Other forms of aid appear to operate through different channels. Merit-based aid primarily influences where students enroll rather than whether they attend college or their academic performance (Mayer et al., 2015; Monks, 2009; Sjoquist and Winters, 2015; Angrist et al., 2022). Loans, in turn, more strongly affect students' major and career choices (Stater, 2011; Rothstein and Rouse, 2011; Hampole, 2023), though higher debt burdens may also negatively affect persistence and academic performance (Herzog, 2018; Destin and Svoboda, 2018; Baker and Montalto, 2019).

3.1.2 Financial Aid Loss, Eligibility, and Student Outcomes

While the literature on the impacts of financial aid receipt is extensive, relatively little research examines the consequences of losing financial aid or eligibility for aid. Recent evidence demonstrates that students value the stability of financial support: Dynarski et al. (2021) shows that a guaranteed four-year aid package covering tuition and fees—without requiring annual reapplication—increases both applications and enrollment, suggesting that students place a premium on predictability in financial support. Related work stipulates that changes in financial aid status may be more consequential than the initial level of aid a student receives, as fluctuations in support can significantly alter students' educational trajectories (Bettinger, 2004).

In this sense, losing aid may not only reverse the positive effects of initial aid receipt—undoing the very gains that aid programs aim to generate—but may also impose new barriers to persistence and completion. As such, losing aid midstream may be particularly disruptive: unlike students who never receive aid, those who lose it face an unexpected financial shock after investing in college, making it more difficult to cover costs without increasing borrowing, reducing course loads, or changing academic plans. This interpretation is consistent with the loss aversion literature in behavioral economics, as once anchored in expectations of continued support, students may respond more strongly to aid removal than to its initial receipt (Kahneman et al., 1991).

To understand how students respond to these disruptions in practice, a small but growing empirical literature examines the effects of reductions in or loss of financial aid. Early evidence from Georgia's HOPE Scholarship highlights the importance of continued receipt. Comparing borderline recipients to similar non-recipients, Henry et al. (2004) finds that students who initially receive HOPE but lose it perform comparably to those who never receive it. Conversely, students who retain the award throughout college experience significantly better outcomes, revealing that the benefits of aid are closely tied to continued receipt rather than initial access alone.

Subsequent work using regression discontinuity (RD) designs provides more direct evidence on the effects of losing aid at renewal thresholds. Studying Tennessee's HOPE Scholarship, Carruthers and Özek (2016) exploits the cumulative GPA threshold at the program's first renewal checkpoint. They find that losing aid leads to modest reductions in engagement with college and increases in labor supply, but has little effect on persistence or degree completion. Related evidence from policy-driven changes in aid generosity comes from Jones et al. (2021), which studies a reform to Georgia's HOPE Scholarship. The reform introduced more stringent high school academic requirements and reduced award amounts by 10-15% for already enrolled students who did not meet the new criteria. This change had little impact on persistence or graduation among relatively high-achieving students, suggesting that responses to aid loss may depend on both the magnitude of the change and the population affected.

A closely related strand of the literature examines loss of eligibility for aid, focusing on academic thresholds that determine continued receipt. While these thresholds are often used to study realized aid loss, an eligibility-based framing highlights a key distinction: it captures responses at the point when students learn whether they remain eligible for aid. These designs therefore capture the initial re-enrollment margin, whereas studies of realized aid loss necessarily condition on students remaining enrolled long enough for aid loss to be observed.

Using this framework, Cummings et al. (2022) examines eligibility loss at the first GPA renewal checkpoint in Tennessee's HOPE Scholarship and finds heterogeneous effects across groups. These include increased stop-out rates among high-income White students, increased transfer rates among low-income Black students, and reductions in longer-run degree completion for Black students. Similarly, Columbus et al. (2025) studies eligibility loss at the first GPA renewal checkpoint among Tennessee HOPE community college recipients and finds that failing to meet this threshold increases stop-out rates, reduces transfer rates to four-year institutions, and lowers degree completion, with especially large effects for low-income students.

3.2 Contributions

This paper extends the existing literature that has focused primarily on merit-based programs and early renewal thresholds by leveraging multiple renewal requirements in a need-based aid program and by analyzing responses to eligibility loss later in college. First, by studying a need-based program, this paper examines settings in which students often have fewer resources to replace lost aid and therefore may face more severe consequences from losing eligibility. This is particularly relevant in the context of the TEXAS Grant, where students lose access to approximately $6,000 per year in aid, making the program higher stakes than those typically studied in the literature.

Second, this paper leverages both cumulative GPA and credit completion thresholds to estimate the effects of eligibility loss. While many financial aid programs include both GPA and credit-attempted requirements, the current literature focuses on GPA-based renewal thresholds. By exploiting both thresholds, the analysis estimates the overall effect of losing eligibility as well as separate effects based on whether students fall below only the GPA threshold, only the credit threshold, or both. These distinctions capture different academic challenges and student circumstances across these thresholds. In particular, students who fall below only the credit threshold are often otherwise in good academic standing, highlighting how students respond to losing eligibility even when academic performance, as measured by GPA, remains relatively strong.

Third, this paper provides the first evidence on eligibility loss at later renewal checkpoints, specifically after the second and third years of college. Prior studies examine initial renewal thresholds, leaving it unclear how students respond to eligibility loss later in their academic careers. Examining later checkpoints provides insight into a distinct group of students who have already persisted and are closer to degree completion, allowing for a more complete understanding of how the timing of eligibility loss shapes student outcomes. At these later stages, both students and the state have already invested significant time and resources, making eligibility loss potentially more costly for both. Taken together, these contributions show how responses to eligibility loss vary by why students lose eligibility and the point at which they lose it.

4 Data

The data for this paper come from the Houston Education Research Center, which houses longitudinal data provided by the Texas Higher Education Coordinating Board (THECB). These records track students who enroll in Texas public universities and include student admissions information, annual financial aid records, semester-by-semester courses and grades, as well as information on majors and graduation outcomes. Admissions data include student and family demographics, such as age, gender, race/ethnicity, parental education, and family income range. The financial aid records contain an indicator for TEXAS Grant receipt, along with all other sources and amounts of aid awarded to each student. All financial aid amounts are expressed in 2021 dollars using the Bureau of Labor Statistics' College Tuition and Fees Price Index (Series ID: CUUR0000SEEB01).[3]

The semester-by-semester course and grade data provide the information needed to calculate cumulative GPA and credit accumulation, which determine whether a student meets TEXAS Grant renewal requirements. Students' major(s) are identified using 6-digit Classification of Instructional Programs (CIP) codes, while graduation records capture graduation dates, majors, and degrees earned. Because the dataset covers all Texas public universities, I can track students who transfer and graduate within these schools; however, transfers out

[3]The final academic year included in the financial aid data is 2021-22, making 2021 the most appropriate base year for inflation adjustments.

of state or to private institutions are not observed.

To align with the availability of the course data used to determine renewal eligibility, this analysis uses data spanning from fall 2011 through spring 2022. I restrict analysis to cohorts entering between fall 2011 and fall 2018, ensuring that all students are observed for at least four years. Since the TEXAS Grant is only available to in-state students, I further limit the analysis to Texas residents. Additional restrictions, described in the methodology section, further refine the analytic sample.

5 Methodology

5.1 Framework

The analysis focuses on the end-of-second- and third-year TEXAS Grant renewal checkpoints, at which point students must have a 2.5 cumulative GPA and complete at least 24 credits during the academic year. Students lose eligibility if they fall short of either requirement, and those attempting fewer than 24 credits automatically lose eligibility. To ensure that eligibility status is not mechanically driven by endogenous enrollment choices, I restrict analysis to students who attempted at least 24 credits in the renewal year. This restriction reflects the policy rule itself and ensures that variation in eligibility arises from academic performance rather than mechanically from under-enrollment.

Comparing students just above and below these thresholds would identify the effect of crossing one or more of the renewal thresholds, but it does not isolate the effect of losing eligibility from other academic disruptions. Since all students in the analysis attempt at least 24 credits, falling below the credit requirement necessarily implies at least one course failure. Course failure may carry its own consequences that influence subsequent enrollment and degree progress—effects that are not disentangled from the loss of eligibility when comparing recipients just above and below the renewal thresholds.

To address this, I incorporate non-TEXAS Grant recipients as a comparison group in a difference-in-discontinuities (diff-in-disc.) framework. These non-recipients include both students who received other financial aid and those who received none. Given that approximately three-quarters of in-state financial aid recipients receive the TEXAS Grant, restricting the comparison group to only non-TEXAS Grant aid recipients would substantially reduce the sample size and statistical power. Including all students around the same academic thresholds who are not TEXAS Grant recipients allows me to net out the effects of course failure and isolate the causal effect of losing eligibility.[4]

[4]Non-recipients are subject to the same restrictions as recipients, including being in-state students. This improves comparability, as out-of-state students face substantially different financial conditions.

I further restrict the analysis to students who satisfy all prior renewal requirements and who are enrolled full-time in all semesters leading up to each checkpoint. This ensures that I estimate the effect of a first loss of eligibility among students who are continuously enrolled full-time prior to the checkpoint. For the second-year benchmark, this requires that students were enrolled full-time in their first year and met first-year renewal standards (a 2.0 cumulative GPA and completion of at least two-thirds of attempted credits). For the third-year benchmark, students must satisfy these requirements as well as the second-year requirements of a 2.5 cumulative GPA and completion of at least 24 credits in the second year.

With these restrictions in place, I estimate the effect of eligibility loss using a multi-dimensional diff-in-disc. design that extends the multidimensional RD framework of Choi and Lee (2018) and Jones et al. (2021) by using non-recipients as a comparison group. The estimating equation is given by:

$$\begin{aligned} Y_{i\tau} = \alpha + \beta(\text{Recipient}_{it} \times \text{Ineligible}_{i,t+1}) + \gamma_1 \text{Recipient}_{it} + \gamma_2 \text{Ineligible}_{i,t+1} + \\ f(GPA_{it}, Credits_{it}) + [\text{Recipient}_{it} \times f(GPA_{it}, Credits_{it})] + X_i + W_{i,t-1} + \\ \text{Major}_{i,t=1} + \text{Institution}_{i,t=1} + \text{Cohort}_i + \epsilon_{it} \end{aligned} \tag{1}$$

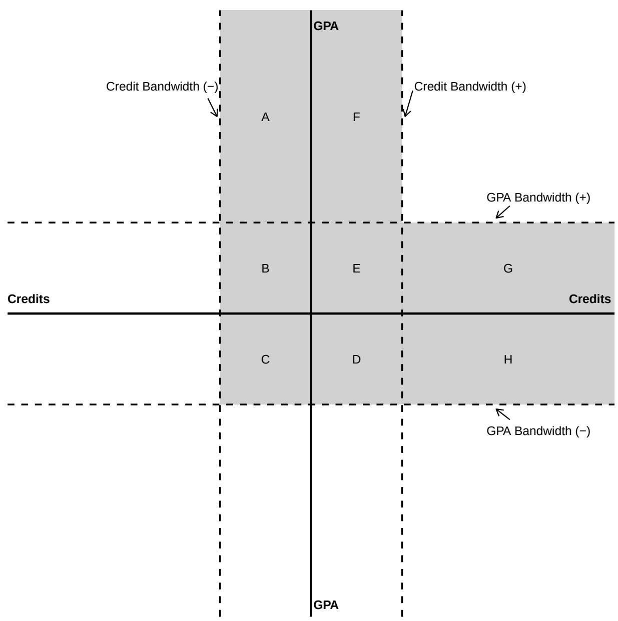
where $Y_{i\tau}$ is an outcome measured after the renewal checkpoint, with $\tau \geq t+1$; Recipient_{it} is an indicator for a current TEXAS Grant recipient; and $\text{Ineligible}_{i,t+1}$ indicates ineligibility in period $t+1$ based on whether a student falls below either renewal threshold in period t ($\mathbb{1}\{GPA_{it} < 2.5 \text{ or } Credits_{it} < 24\}$). The coefficient, β, on the interaction $\text{Recipient}_{it} \times \text{Ineligible}_{i,t+1}$ captures the effect of losing eligibility among TEXAS Grant recipients near the renewal thresholds. X_i is a vector of student demographic characteristics that includes gender, age, race/ethnicity, and family income. $W_{i,t-1}$ is a vector of pre-renewal academic outcomes that includes cumulative GPA, credits attempted and completed, and the number of credits attempted across subject areas (e.g., math, science, social science, and English) through the year prior to the renewal checkpoint. Fixed effects for 2-digit CIP entry major ($\text{Major}_{i,t=1}$), institution ($\text{Institution}_{i,t=1}$), and cohort ($\text{Cohort}_i$) are also included.

The function $f(GPA_{it}, Credits_{it})$ accounts for the multidimensional nature of the running variables and is specified as:

$$\begin{aligned} f(GPA_{it}, Credits_{it}) = GPA\ Below_{it} + GPA\ Above_{it} + Credits\ Below_{it} + \\ Credits\ Above_{it} + (GPA\ Below_{it} \times Credits\ Below_{it}) + \\ (GPA\ Above_{it} \times Credits\ Above_{it}) \end{aligned} \tag{2}$$

where $GPA\ Below_{it}$ and $Credits\ Below_{it}$ are equal to centered values of GPA and credits when they are below their respective thresholds and zero otherwise. $GPA\ Above_{it}$ and $Credits\ Above_{it}$ are defined analogously for values above their respective thresholds. GPA is centered at 2.5 and credits at 24, so negative values indicate ineligibility and positive values indicate eligibility. These forcing variables provide flexible controls for smooth trends in academic performance around each threshold and capture the joint determination of eligibility through GPA and credit requirements.

Following Jones et al. (2021), I select bandwidths for each dimension separately using the optimal bandwidth procedures from Calonico et al. (2014). The resulting bandwidths are 5 credits and 0.30 GPA points for the second-year benchmark and 5 credits and 0.20 GPA points for the third-year benchmark. The sample is restricted to students within at least one of these bandwidths, excluding those far below either threshold to avoid multiple sources of eligibility loss related to SAP requirements that could contaminate the estimates.



Notes: This figure illustrates the multidimensional design. The horizontal dashed lines represent the GPA bandwidth, while the vertical dashed lines indicate the credit bandwidth. Students in the shaded gray area are included in the analyses.

Figure 3. Multidimensional Illustration

Figure 3 illustrates this design. Students in the dark gray shaded region are included in the analysis, and those in regions A, B, C, D, and H fail to meet at least one renewal requirement and therefore lose eligibility for the TEXAS Grant. For the second-year benchmark, this design includes nearly one-third of all first-year recipients during this period and 62,537 of the 148,754 (42%) second-year recipients, while for the third-year benchmark, it includes 35,512 of the 89,134 (40%) third-year recipients.

	All Recipients	Recipients in Analysis
Male	0.37	0.38
White	0.18	0.18
Black	0.16	0.16
Hispanic	0.55	0.55
First-Generation	0.23	0.26
First-Year Credits Passed	28.16	27.91
First-Year Cumulative GPA	3.07	3.06
N	148,754	62,537

Notes: The first column includes all students who received the TEXAS Grant in their second-year, while the second column includes only second-year TEXAS Grant recipients in this analysis.

Table 1. Descriptive Statistics of Second-Year Recipients

Table 1 compares second-year TEXAS Grant recipients in the analysis to the full population of second-year recipients. Recipients in the analysis closely resemble the full population. Gender and race distributions are similar across groups, while a slightly higher share of students in the analysis are first-generation (26.4% vs. 23.0%). First-year academic outcomes are also very similar across groups in both credits passed and GPA.

5.2 Identifying Assumptions

The validity of the diff.-in-disc. framework relies on satisfying two key identifying assumptions: (1) continuity in potential outcomes at the thresholds and (2) no manipulation of the running variables.

5.2.1 Continuity at the Thresholds

For the continuity assumption, potential outcomes must evolve smoothly at the thresholds, with no differential discontinuities between recipients and non-recipients unrelated to eligibility loss. I assess this assumption by conducting a covariate balance check using the following equation:

$$\begin{aligned} X_{it} = \alpha + \beta(\text{Recipient}_{it} \times \text{Ineligible}_{i,t+1}) + \eta_1 \text{Recipient}_{it} + \eta_2 \text{Ineligible}_{i,t+1} + \\ f(GPA_{it}, Credits_{it}) + [\text{Recipient}_{it} \times f(GPA_{it}, Credits_{it})] + \epsilon_{it} \end{aligned} \tag{3}$$

where X_{it} is a vector of student characteristics and prior academic outcomes (previously denoted as $W_{i,t-1}$ in Equation 1). All other variables retain their previous definitions. In this equation, β captures whether there are differential discontinuities in observables between recipients and non-recipients at the thresholds that could indicate outcomes may not evolve smoothly at the thresholds.

The three panels of Table 2 present results from the above equation for the second-year benchmark. As shown in Panels A and B, while most student demographic characteristics and income categories show no significant differences, two small differences are detected. In particular, falling below a renewal threshold is associated with a 2.7 pp larger increase in the share of White students and a 2.0 pp larger decrease in the share of first-generation students among recipients relative to non-recipients.[5]

Panel A: Student Demographics		**Panel B: Family Income**		**Panel C: First-Year Academic Outcomes**	
Age	0.004	Unknown	-0.010	STEM Major	0.008
	(0.0103)		(0.0132)		(0.0125)
Male	-0.009	<$20,000	-0.006	Cumulative GPA	0.014*
	(0.0139)		(0.0071)		(0.0072)
White	0.027**	$20,000-$39,999	0.002	Credits Attempted	-0.041
	(0.0131)		(0.0085)		(0.0935)
Black	-0.009	$40,000-$59,999	0.002	Credits Passed	-0.035
	(0.0085)		(0.0084)		(0.0974)
Hispanic/Latino	-0.009	$60,000-$79,999	0.004		
	(0.0129)		(0.0075)		
First-Generation	-0.020**	$80,000+	0.007		
	(0.0095)		(0.0118)		
N	189,351	N	189,351	N	189,351

Notes: The family income bins in Panel B correspond to the options students can select on their applications. STEM majors include fields related to engineering, biological sciences, mathematics/statistics, and physical sciences. *p<0.10; **p<0.05; ***p<0.01.

Table 2. Covariate Balance Check: Second-Year Benchmark

Panel C reports results for academic characteristics prior to renewal, which are especially important given that the outcomes of interest include timely graduation and degree completion. It is therefore important to verify that recipients and non-recipients are comparable on these prior academic measures across the thresholds. There is no evidence of differential changes in STEM representation or prior credit accumulation, and only a small, marginally significant higher GPA for recipients below a threshold (0.014 points).[6]

Appendix Table A.1 reports analogous results for the third-year benchmark. Differences across thresholds remain small, with no evidence of differential changes in gender, race/ethnicity, prior GPA, or credits accumulated, and only modest differences in first-generation status and two income categories. Across both renewal benchmarks, these dif-

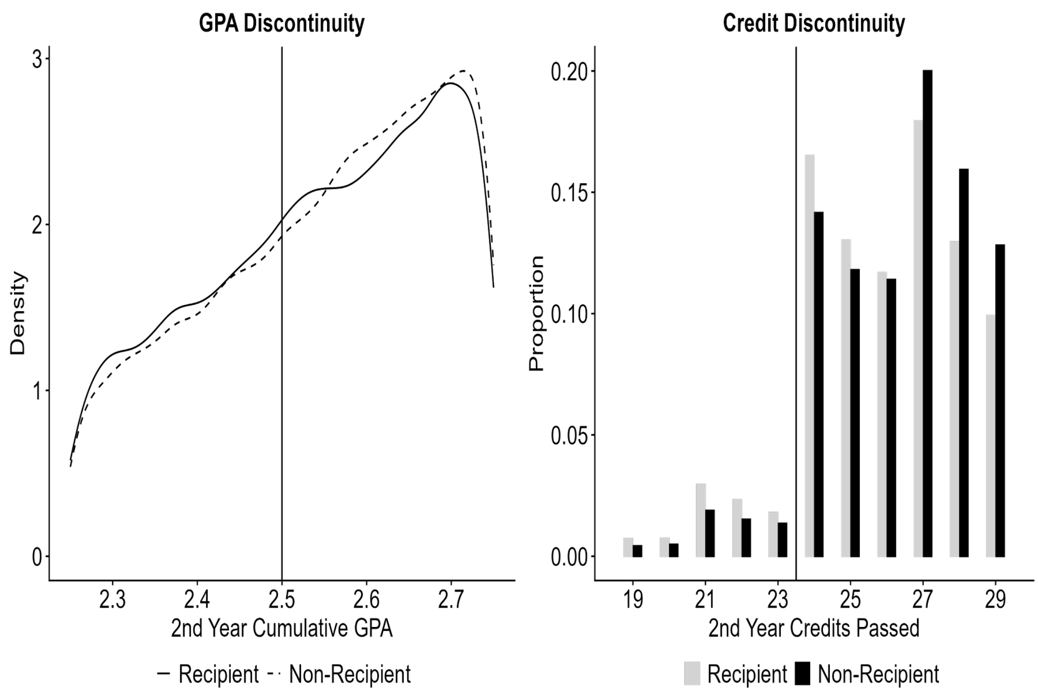
[5] These income categories reflect the response bins on student applications.

[6] STEM majors are defined according to the Department of Homeland Security's STEM Designated Degree Program list that includes majors under the following four primary CIP 2-digit series: 14 (Engineering), 26 (Biological and Biomedical Sciences), 27 (Mathematics and Statistics), and 40 (Physical Sciences) (Department of Homeland Security, 2023).

ferences are small and do not appear consistently across characteristics, largely supporting the continuity assumption.

5.2.2 Manipulation of the Running Variables

Identification additionally requires that students are not able to manipulate the running variables around the renewal thresholds. Figure 4 shows the distributions of second-year cumulative GPA and credits passed for recipients and non-recipients. In the left panel, the GPA distribution is smooth around the threshold for both groups. In the right panel, there is visible clustering at and above the 24-credit cutoff; however, this reflects the fact that more students pass all courses than fail at least one, leading to natural bunching at 24 credits passed. Importantly, because the renewal requirement is based on credits passed rather than credits attempted, students cannot precisely adjust their course-taking behavior to remain above the threshold, limiting the scope for manipulation.



Notes: This figure shows the distribution of cumulative GPA (left) and credits passed (right) at the second-year renewal benchmark for TEXAS Grant recipients and non-recipients. The vertical lines indicate the relevant GPA (2.5) and credit (24) thresholds.

Figure 4. Density Plots: Second-Year Benchmark

Density patterns at the third-year benchmark are similar (see Appendix Figure A.1). The GPA distribution remains smooth around the threshold, though fewer students are far below a 2.5 cumulative GPA.[7] As in the second-year benchmark, there is clustering at 24 credits

[7]Students must meet the 2.5 cumulative GPA requirement at the end of their second year to remain

passed, but this reflects mechanical bunching rather than manipulation. Collectively, these figures provide no evidence of manipulation around the thresholds and little indication of strategic behavior.

To further assess potential manipulation not captured by the density plots, I examine the distribution of course grades. Because only passing grades count toward completed credits, shifting from a failing grade to a passing grade would increase credits earned and could allow students to remain above the renewal threshold. However, Appendix Figure A.2 shows no evidence of a concentration at the lowest passing grade (D) for recipients or non-recipients at either benchmark. While recipients are somewhat more likely to receive lower grades (C, D, and F) and less likely to receive higher grades (A or B), these differences reflect overall performance rather than precise control over passing grades.

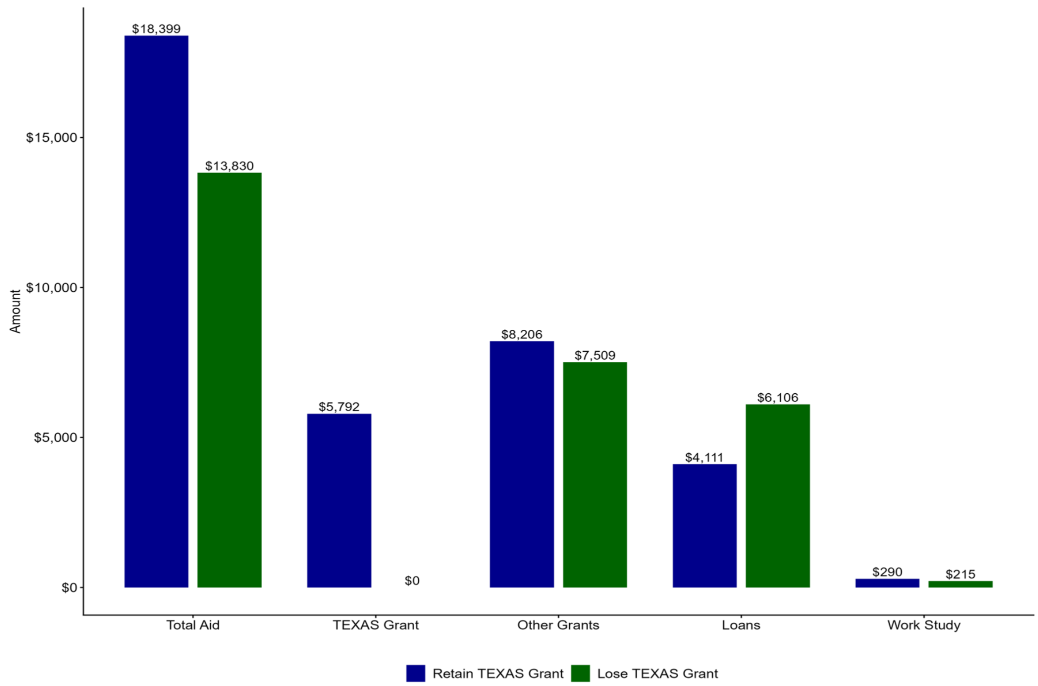
6 Results

6.1 Financial Aid

To provide context on the financial consequences of losing TEXAS Grant eligibility, I begin by examining differences in realized financial aid packages among second-year recipients who either retain or lose the grant in their third year. While the empirical analysis focuses on loss of eligibility rather than realized aid loss, the latter ultimately determines students' actual financial resources. Comparing students who retain the grant to those who lose it therefore provides a transparent descriptive illustration of the potential financial shock associated with eligibility loss. Figure 5 presents average third-year aid packages among students who enroll in the third year in each group.

Students who lose the TEXAS Grant lose all of their aid from the program, approximately \$5,800 on average, which is only partially offset by other sources. These students also receive slightly less in other grant aid (\$700) and borrow more than \$6,000 in their third year—nearly \$2,000 more than those who retain the grant. They are also more likely to hit the annual federal borrowing limit of \$7,500 for dependent undergraduates (21% vs. 16%), revealing that more recipients are unable to borrow enough to cover their full cost of attendance. Despite this increased reliance on loans, total aid falls by approximately \$4,500, pointing to constraints in smoothing this shock and providing a potential channel through which eligibility loss may affect persistence, timely graduation, and degree attainment.

eligible, and because GPA is cumulative, it is difficult for it to subsequently fall far below this threshold.



Notes: This figure reports average third-year financial aid amounts for second-year TEXAS Grant recipients who either retain or lose the grant, conditional on enrolling in the third year. Total aid is the sum of aid from the TEXAS Grant, other grants, loans, and work-study. Aid amounts are expressed in 2021 dollars using the Bureau of Labor Statistics' College Tuition and Fees Price Index (Series ID: CUUR0000SEEB01).

Figure 5. Third-Year Financial Aid Packages by TEXAS Grant Retention Status

6.2 Main Results

6.2.1 Second-Year Renewal Benchmark

Table 3 presents estimated effects of loss of eligibility at the second-year benchmark on third- and fourth-year academic outcomes in Panels A and B, respectively. To aid interpretation of the diff.-in-disc. estimates, I also report results from separate multidimensional RD specifications for TEXAS Grant recipients and non-recipients (first two columns), along with their difference (third column). These estimates are included to illustrate the underlying discontinuities for each group and their contribution to the formal diff.-in-disc. estimates from Equation 1 in the fourth column.[8] The final column reports the mean outcome among eligible recipients, providing a reference point for interpreting the magnitude of the estimates.

Panel A shows that losing eligibility leads to a 1.3 pp reduction in third-year persistence. This effect is driven by a 1.8 pp drop among TEXAS Grant recipients, while the estimate for non-recipients is small and insignificant. While persistence falls, there is no evidence of

[8]The recipient and non-recipient RD specifications are estimated separately, and Equation 1 does not fully interact recipient status with all controls, so the difference between these estimates does not mechanically equal the reported diff.-in-disc. estimate.

Panel A: 3rd Year	**Recipient RD**	**Non-Recipient RD**	**Difference**	**Diff.-in-Disc.**	**Mean (Eligible Recipients)**
Persist	-0.018***	-0.005	-0.013	-0.013**	0.951
	(0.005)	(0.004)		(0.006)	
Stopout	0.008**	0.002	0.005	0.005	0.017
	(0.003)	(0.002)		(0.004)	
Transfer	0.001	-0.002	0.003	0.003	0.044
	(0.004)	(0.003)		(0.005)	
FT Enrollment	-0.051***	-0.012*	-0.039	-0.040***	0.828
	(0.009)	(0.007)		(0.011)	
Credits Attempted	-1.045***	-0.295**	-0.751	-0.771***	26.951
	(0.176)	(0.140)		(0.225)	
Credits Passed	-1.498***	-0.785***	-0.713	-0.746***	25.979
	(0.188)	(0.146)		(0.236)	
Panel B: 4th Year					
Persist	-0.014**	-0.013***	-0.001	-0.001	0.793
	(0.007)	(0.005)		(0.008)	
Stopout	0.005*	0.001	0.004	0.004	0.016
	(0.003)	(0.002)		(0.003)	
Transfer	-0.001	0.007***	-0.008	-0.008**	0.015
	(0.003)	(0.002)		(0.003)	
FT Enrollment	-0.017*	-0.030***	0.013	0.010	0.615
	(0.010)	(0.008)		(0.013)	
Credits Attempted	-0.470**	-0.691***	0.222	0.178	20.520
	(0.220)	(0.166)		(0.272)	
Credits Passed	-0.798***	-1.042***	0.244	0.202	19.749
	(0.225)	(0.169)		(0.277)	
N	62,537	126,814		189,351	51,533

Notes: Persistence indicates whether a student enrolls in the following academic year. Stopout is defined as not enrolling in the following academic year but returning in a later year. Students who do not enroll in a given year are coded as not enrolled full-time and as attempting and completing zero credits, so estimates for enrollment and credit outcomes reflect both changes in persistence and changes in course-taking among those who remain enrolled. *p<0.10; **p<0.05; ***p<0.01.

Table 3. Third- and Fourth-Year Outcomes: Second-Year Benchmark

corresponding changes in stopout or transfer rates. Meanwhile, there are pronounced effects on enrollment intensity, as full-time enrollment falls by 4.0 pp (approximately 5%). This is again largely attributable to recipients (5.1 pp), though non-recipients also exhibit a marginally significant reduction (1.2 pp). These changes translate into lower credit accumulation, with students attempting and completing approximately 0.75 fewer credits on average. As with enrollment, reductions in credit accumulation are present for both groups but are more pronounced among recipients.

For fourth-year outcomes, Panel B shows that these effects largely dissipate. There is no evidence of continued changes in persistence, enrollment behavior, or credit accumulation. The only notable difference is a 0.8 pp decline in transfer rates, but this is driven by a significant increase among non-recipients rather than a change among recipients.

	Recipient RD	Non-Recipient RD	Difference	Diff.-in-Disc.	Mean (Eligible Recipients)
Graduate (4 Years)	-0.018**	-0.035***	0.017	0.018	0.397
	(0.009)	(0.008)		(0.012)	
N	62,537	126,814		189,351	51,533
Graduate (5 Years)	-0.047***	-0.054***	0.007	0.003	0.748
	(0.010)	(0.007)		(0.012)	
N	47,832	97,933		145,765	39,022
Graduate (6 Years)	-0.036***	-0.042***	0.006	0.003	0.829
	(0.010)	(0.007)		(0.012)	
Bachelor's Degree	-0.036***	-0.024***	-0.012	-0.016	0.870
	(0.009)	(0.006)		(0.011)	
N	40,087	83,169		123,256	32,564
Time to Graduation	0.345	1.212***	-0.867	-0.770**	52.938
	(0.320)	(0.217)		(0.374)	
N	42,538	94,114		136,652	36,651
Grad School Attendance	-0.006	-0.014*	0.009	0.009	0.178
	(0.010)	(0.008)		(0.012)	
N	40,087	83,169		123,256	32,564

Notes: Four-year graduation rates include all cohorts; five-year graduation rates omit the fall 2018 entry cohort as spring 2023 graduation records are not yet available; six-year graduation rates and degree attainment further omit the fall 2017 entry cohort. Time to graduation only includes graduates, using the month and year of their graduation and a uniform starting month of September for all universities. *p<0.10; **p<0.05; ***p<0.01.

Table 4. Graduation Outcomes: Second-Year Benchmark

Turning to longer-run outcomes, Table 4 examines whether these short-run disruptions translate into differences in graduation timing, degree attainment, or graduate school enrollment. Consistent with earlier results showing that impacts on persistence and enrollment fade by the fourth year, these estimates show little evidence of effects on graduation outcomes. While the multidimensional RD estimates for both recipients and non-recipients are negative and significant for most outcomes, they are similar in magnitude across groups, resulting in near-zero diff.-in-disc. estimates across most outcomes. The only significant estimate is the 0.770 month reduction in time to graduation. However, this reflects a 1.212 month increase in time to degree among non-recipients, making it difficult to attribute to the loss of eligibility itself. Across estimates, eligibility loss after two years has short-lived effects and does not lead to meaningful differences in graduation outcomes.

6.2.2 Third-Year Renewal Benchmark

The analysis now turns to the third-year renewal benchmark. Table 5 presents estimates of the effects of eligibility loss on fourth-year academic outcomes. There are no impacts on persistence, stopout, transfer, or full-time enrollment, though eligibility loss does lead to a modest 0.92-credit reduction in credits attempted and passed.

	Recipient RD	**Non-Recipient RD**	**Difference**	**Diff.-in-Disc.**	**Mean (Eligible Recipients)**
Persist	-0.013	0.004	-0.016	-0.015	0.786
	(0.012)	(0.009)		(0.015)	
Stopout	-0.008*	0.000	-0.008	-0.008	0.009
	(0.005)	(0.003)		(0.005)	
Transfer	0.007	0.002	0.005	0.006	0.010
	(0.005)	(0.003)		(0.005)	
FT Enrollment	-0.044**	-0.020	-0.025	-0.028	0.604
	(0.020)	(0.015)		(0.025)	
Credits Attempted	-1.071***	-0.134	-0.937	-0.915*	20.594
	(0.401)	(0.287)		(0.489)	
Credits Passed	-1.717***	-0.786***	-0.931	-0.922*	20.070
	(0.408)	(0.290)		(0.495)	
N	35,512	88,290		123,802	32,971

Notes: Persistence indicates whether a student enrolls in the following academic year. Stopout is defined as not enrolling in the following academic year but returning in a later year. Students who do not enroll in a given year are coded as not enrolled full-time and as attempting and completing zero credits, so estimates for enrollment and credit outcomes reflect both changes in persistence and changes in course-taking among those who remain enrolled. *p<0.10; **p<0.05; ***p<0.01.

Table 5. Fourth-Year Outcomes: Third-Year Benchmark

Estimated effects on graduation outcomes at the third-year renewal benchmark are presented in Table 6. In contrast to the second-year benchmark, eligibility loss at this later stage results in declines in timely graduation rates and degree completion. Specifically, five-year graduation rates fall by 6.5 pp, six-year rates by 5.5 pp, and bachelor's degree attainment by 3.8 pp. Given a baseline degree attainment rate of approximately 94%, this corresponds to a roughly 4.1% decline in completion. Time to graduation increases by 1.3 months among those who complete a degree, consistent with the decline in timely graduation rates, while there is no evidence of effects on graduate school enrollment.

6.3 Effects by Renewal Threshold

6.3.1 Specification and Identification

While the above results estimate the average effect of losing eligibility for students near the thresholds, they combine three distinct reasons for eligibility loss. Students lose eligibility if

	Recipient RD	Non-Recipient RD	Difference	Diff.-in-Disc.	Mean (Eligible Recipients)
Graduate (4 Years)	-0.049**	-0.036***	-0.013	-0.013	0.466
	(0.019)	(0.014)		(0.024)	
N	35,512	88,290		123,802	32,971
Graduate (5 Years)	-0.140***	-0.079***	-0.061	-0.065***	0.841
	(0.019)	(0.011)		(0.020)	
N	26,218	65,231		91,449	24,319
Graduate (6 Years)	-0.096***	-0.043***	-0.053	-0.055***	0.913
	(0.017)	(0.009)		(0.017)	
Bachelor's Degree	-0.060***	-0.024***	-0.036	-0.038**	0.938
	(0.015)	(0.008)		(0.015)	
N	21,937	55,502		77,439	20,305
Time to Graduation	2.426***	1.148***	1.279	1.326*	51.282
	(0.607)	(0.377)		(0.683)	
N	26,755	70,388		97,143	25,374
Grad School Enrollment	-0.014	0.004	-0.017	-0.016	0.195
	(0.022)	(0.016)		(0.027)	
N	21,937	55,502		77,439	20,305

Notes: Four-year graduation rates include all cohorts; five-year graduation rates omit the fall 2018 entry cohort as spring 2023 graduation records are not yet available; six-year graduation rates and degree attainment further omit the fall 2017 entry cohort. Time to graduation only includes graduates, using the month and year of their graduation and a uniform starting month of September for all universities. *p<0.10; **p<0.05; ***p<0.01.

Table 6. Graduation Outcomes: Third-Year Benchmark

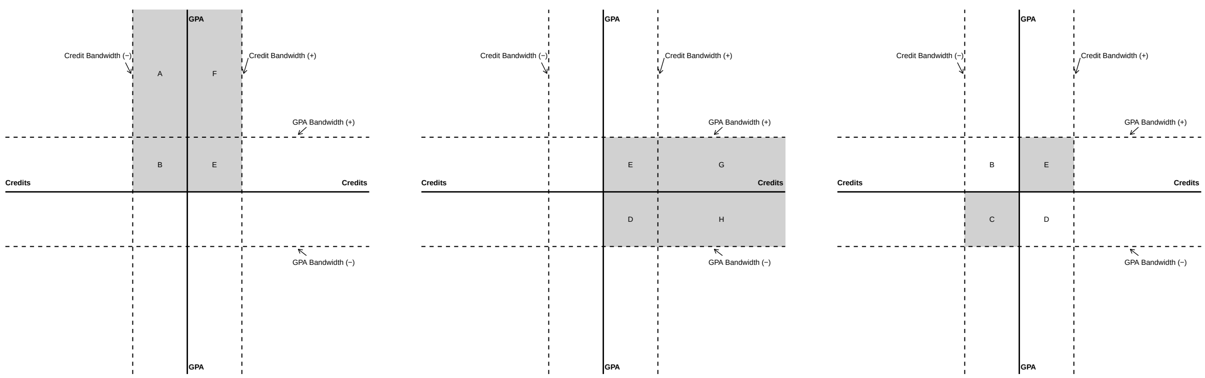
they fall below only the 2.5 cumulative GPA threshold, only the 24-credit completion threshold, or both. Students in these groups differ substantially in their academic performance and the nature of their eligibility loss, so effects may differ across them. For example, one student may pass 23 credits while maintaining a 3.5 GPA, narrowly missing the credit requirement after failing a single course, while another may complete 30 credits but have a GPA of 2.4, falling just short of the GPA threshold. A third group falls below both thresholds, for instance, passing 21 credits while having a 2.25 GPA.

To examine whether effects vary by the reason for eligibility loss, I segment the analysis based on which renewal threshold(s) a student fails to meet. Specifically, I estimate effects separately for the three groups shown in Figure 6. The first is the credit specification (Panel A), which includes students within the optimal bandwidth around the 24-credit threshold (19–29 credits) who satisfy the GPA requirement (cumulative GPA of at least 2.5). Among recipients who lose eligibility in the main analysis, 30% (64%) do so due to falling short of the credit requirement alone in the second (third) year. Identification comes from comparing students just above and just below the 24-credit threshold, isolating the effect of losing eligibility due to insufficient credit accumulation. As all students in this area meet the

GPA requirement, the specification reduces to a single-dimensional diff.-in-disc. design using credits passed as the running variable. The estimating equation is given by:

$$
\begin{aligned}
Y_{i\tau} = \alpha &+ \beta(\text{Recipient}_{it} \times \text{Credit Ineligible}_{i,t+1}) + \phi_1 \text{Recipient}_{it} + \\
&\phi_2 \text{Credit Ineligible}_{i,t+1} + \phi_3 \tilde{R}_{it} + \phi_4(\tilde{R}_{it} \times \text{Credit Ineligible}_{i,t+1}) + \\
&\phi_5(\tilde{R}_{it} \times \text{Recipient}_{it}) + \phi_6(\tilde{R}_{it} \times \text{Recipient}_{it} \times \text{Credit Ineligible}_{i,t+1}) + \\
&X_i + W_{i,t-1} + \text{Major}_{i,t=1} + \text{Institution}_{i,t=1} + \text{Cohort}_i + \epsilon_{it}
\end{aligned}
\tag{4}
$$

where Credit Ineligible$_{i,t+1}$ is an indicator for ineligibility in period $t+1$ based on whether a student passes fewer than 24 credits in period t, $\tilde{R}_{it}$ denotes centered credits passed, and all other variables are defined as in Equation 1. The coefficient of interest, β, captures the effect of losing eligibility at the credit threshold for students who satisfy the GPA requirement.



Panel A: Credit Specification **Panel B: GPA Specification** **Panel C: Joint Specification**

Figure 6. Regions Used in Each Specification

The second is the GPA specification (Panel B), which includes students who meet the credit requirement but fall below the GPA threshold. These students pass at least 24 credits and have cumulative GPAs within the optimal bandwidth around the 2.5 cutoff (2.2-2.8 for the second-year benchmark; 2.3-2.7 for the third-year benchmark). This specification includes 51% (24%) of recipients in the main analysis who lose eligibility after the second (third) year. The estimating equation is analogous to Equation 4 but uses GPA as the running variable and an indicator for falling below the 2.5 threshold to define ineligibility, thereby estimating the effect of losing eligibility at the GPA threshold among students who pass at least 24 credits.

The third is the joint specification (Panel C), which includes students within the optimal bandwidth of both thresholds who lie just above both thresholds or just below both thresholds. These regions account for 18% (12%) of recipients in the main analysis who lose eligibility at the second (third) year benchmark. This specification uses the multidimensional framework in Equation 1 and estimates the effect of losing eligibility among students who fail to meet both renewal requirements. Students within the bandwidth of both thresholds who fall below only one are excluded (regions B and D), as including them would conflate the effects of failing both requirements with those of failing only one.

	Credit	**GPA**	**Joint**
Male	0.42	0.46	0.48
White	0.44	0.37	0.37
Black	0.09	0.17	0.16
Hispanic	0.35	0.38	0.40
First-Generation	0.13	0.17	0.17
Year 2 Credits Passed	54.56	55.98	52.75
Year 2 Cumulative GPA	3.26	2.58	2.61
N	158,009	49,210	26,986

Notes: This table reports descriptive statistics for students in the second-year benchmark analysis by the reason(s) they fall below a renewal threshold. "Credit" includes students who meet the GPA requirement and fall within the optimal bandwidth around the credit threshold. "GPA" includes students who meet the credit requirement and fall within the optimal bandwidth around the GPA threshold. "Joint" includes students within the optimal bandwidth of both thresholds who are either above or below both thresholds.

Table 7. Descriptive Statistics of Second-Year Recipients by Specification

Reinforcing the differences across specifications discussed above, Table 7 provides descriptive statistics for each group, highlighting substantial variation in both student characteristics and academic performance. Student composition varies across groups, with the credit specification including lower shares of Black (9% compared to 17% and 16% in the GPA and joint specifications, respectively) and male students (42% vs. 46% and 48%, respectively). In terms of academic performance, students in the credit specification have significantly higher GPAs but complete fewer credits than those in the GPA specification, with an average GPA of 3.26 compared to 2.58, while completing roughly 1.4 fewer credits. Students in the joint specification are the most academically vulnerable, exhibiting the lowest credit completion (52.75 credits) and relatively low GPAs (2.61). These differences show that students lose eligibility under very different academic circumstances, highlighting the importance of estimating effects separately by the reason for eligibility loss.

6.3.2 Results

Table 8 presents estimates for selected persistence and graduation outcomes separately by specification for the second- and third-year renewal checkpoints, with columns in each panel corresponding to one of the three specifications described above. The table reports diff.-in-disc. estimates for these outcomes, while Appendix Figures A.3-A.12 visualize the underlying recipient and non-recipient discontinuities for all outcomes in the credit and GPA specifications.[9]

	Second-Year Benchmark			**Third-Year Benchmark**		
	Credit	**GPA**	**Joint**	**Credit**	**GPA**	**Joint**
Persist (Y3)	-0.036***	-0.004	0.008	–	–	–
	(0.012)	(0.008)	(0.036)			
Persist (Y4)	-0.012	-0.003	-0.079*	-0.037*	-0.026	0.089
	(0.016)	(0.012)	(0.046)	(0.021)	(0.021)	(0.086)
Graduate (4 Years)	0.029	-0.004	-0.086	0.026	-0.068	-0.005
	(0.024)	(0.017)	(0.062)	(0.034)	(0.044)	(0.150)
N	158,009	49,210	26,986	117,470	10,438	5,690
Graduate (6 Years)	-0.029	0.014	-0.197***	-0.124***	0.009	-0.111
	(0.024)	(0.018)	(0.078)	(0.025)	(0.040)	(0.181)
Bachelor's Degree	-0.037*	-0.006	-0.187***	-0.075***	-0.023	-0.305*
	(0.022)	(0.017)	(0.072)	(0.021)	(0.035)	(0.159)
Grad School	0.006	0.030**	-0.007	0.003	-0.008	0.236
Attendance	(0.026)	(0.015)	(0.059)	(0.040)	(0.037)	(0.144)
N	100,436	35,721	19,215	72,680	7,893	4,228

Notes: This table reports diff.-in-disc. estimates of the effects of eligibility loss on persistence and graduation outcomes by the reason(s) they fall below a renewal threshold. "Credit" includes students who meet the GPA requirement and fall within the optimal bandwidth around the credit threshold. "GPA" includes students who meet the credit requirement and fall within the optimal bandwidth around the GPA threshold. "Joint" includes students within the optimal bandwidth of both thresholds who are either above or below both thresholds. Four-year graduation rates include all cohorts, and six-year graduation rates and degree attainment omit the fall 2017 and 2018 entry cohorts as spring 2022 and 2023 graduation records are not yet available. *p<0.10; **p<0.05; ***p<0.01.

Table 8. Results by Threshold and Benchmark

Beginning with the credit specification, eligibility loss after two years leads to declines in third-year persistence (3.6 pp) and degree completion (3.7 pp). In contrast, there is little evidence of effects in the GPA specification, with estimates that are generally small and insignificant across outcomes, aside from a 3.0 pp increase in the likelihood of attending

[9] Discontinuities for the joint specification are not shown, as the multidimensional design cannot be easily visualized in a single figure.

graduate school. The largest effects occur in the joint specification, though these estimates are less precise. Students who fail to meet both renewal requirements experience a 7.9 pp decline in fourth-year persistence, along with large reductions in six-year graduation rates (19.7 pp) and bachelor's degree attainment (18.7 pp).

At the third-year benchmark, effects shift toward longer-run outcomes. In the credit specification, eligibility loss continues to reduce persistence (3.7 pp), reflecting the same immediate enrollment response seen at the second-year benchmark, but now also leads to a reduction in six-year graduation rates (12.4 pp) and a larger decline in degree attainment (7.5 pp). In line with results from the earlier benchmark, there is little evidence of effects in the GPA specification, while estimates in the joint specification are similar in direction but even less precisely estimated due to the smaller sample.

The results in these tables highlight substantial heterogeneity in the effects of eligibility loss by both the reason for ineligibility and the timing of loss. The most consistent effects are observed in the credit specification, where students—despite having the highest GPAs prior to losing eligibility—experience declines in persistence and degree completion. In contrast, there is little evidence of effects in the GPA specification, while estimates on persistence and completion are the largest for the joint specification, though imprecisely estimated.

Effects are more pronounced at the third-year benchmark, suggesting that losing aid later in college may be more consequential. At this stage, students are typically further along in their programs and focused on more advanced coursework and major requirements, making this a more pivotal point in their academic trajectory. They also have less time to adjust their course-taking or enrollment decisions in response to the loss of aid, which may limit their ability to recover and contribute to the larger declines in longer-run completion outcomes.

The results from the credit specification at both benchmarks are particularly striking. Among recipients who lose eligibility in this group, average cumulative GPAs at exit remain well above the level required for good academic standing (2.36 for those who lose eligibility at the second-year benchmark; 2.48 for those at the third-year benchmark), and they have completed 66% and 85% of the minimum credits required for a degree (81 and 102 credits, respectively). One possible explanation is that the loss of eligibility may act as a salient signal about academic progress or future success, consistent with models in which students update beliefs about their likelihood of completion as they receive new information during college (Stinebrickner and Stinebrickner, 2012). This signal may be particularly informative for students in the credit specification, who are otherwise performing well academically, making the loss of eligibility more unexpected. If students interpret this as a negative signal about their prospects, they may revise their expectations about completing a degree and adjust their enrollment decisions accordingly.

7 Heterogeneity

I next examine how the effects of losing eligibility vary across institutional settings and student characteristics. Specifically, I explore heterogeneity by institutional context (tuition cap status) and student background (first-generation status and family income), estimating effects for both the main and credit specifications. I also examine heterogeneity by cumulative GPA tercile within the credit specification. These analyses consider both persistence and graduation outcomes at the second- and third-year benchmarks.

7.1 Tuition Cap Status

To understand how institutional pricing structures shape students' responses to losing eligibility for the TEXAS Grant, I first examine heterogeneity by tuition cap status. Since 2005, all public universities in Texas charge a \$50 per-credit statutory tuition rate, as mandated by Texas Education Code §54.051(c) (Texas Legislature, 2023). However, designated tuition—the institutional component layered on top of statutory tuition—varies across institutions. Some universities charge a flat per-credit rate regardless of the number of credits attempted, while others implement a cap (typically at 12 credits), beyond which additional credits incur no further designated tuition charge. Approximately one-third of public universities follow this capped model, representing roughly 30% of the students in this analysis.

This institutional variation shapes the marginal cost of enrolling in heavier course loads. At universities with a tuition cap, students pay only the \$50 statutory tuition for each credit beyond 12, while students at uncapped institutions pay both the \$50 statutory rate and the institution's designated tuition, making each additional credit substantially more expensive. For example, a student enrolled in 15 credits would pay just \$150 more than a 12-credit student at a capped institution, but at an uncapped institution, they would pay approximately \$750 more.[10] While this gap may appear modest over one semester, it compounds over time: enrolling in three extra credits each semester for two academic years would cost an additional \$2,400 at an institution without a cap.

Importantly, these marginal cost differences only become relevant once students lose eligibility for the TEXAS Grant, which covers tuition and fees in full. At that point, students may no longer receive aid from the program and must pay these costs out of pocket or rely on other sources of aid. Once students must bear these costs themselves—or substitute toward other forms of aid, the financial burden of taking more than 12 credits becomes much more salient, particularly at uncapped institutions. These pricing differences may affect how students respond to losing eligibility by discouraging heavier enrollment, increasing loan

[10] (\$50 + \$200)*3, using a \$200 designated tuition rate that reflects an approximate average across uncapped Texas public universities, though actual rates vary by institution and year.

reliance, or even prompting students to leave college. Although overall tuition levels vary, this example illustrates how pricing structures could amplify the consequences of eligibility loss and shape students' post-renewal decisions.

Table 9 presents estimates by tuition cap status. At the second-year benchmark, estimates for persistence are similar in magnitude across specifications and tuition cap status. For four-year graduation rates, the only significant effect is a 4.6 pp increase at capped universities in the main specification, consistent with students facing lower marginal costs of additional credits and therefore being better able to take heavier course loads. A similar one-off pattern appears for degree attainment, where there is only a significant decline (6.1 pp) at uncapped universities in the credit specification.

	Second-Year Benchmark				**Third-Year Benchmark**			
	Main		**Credit**		**Main**		**Credit**	
	Cap	**No Cap**	**Cap**	**No Cap**	**Cap**	**No Cap**	**Cap**	**No Cap**
Persist (Y3)	-0.012	-0.014*	-0.044*	-0.034**				
	(0.012)	(0.007)	(0.024)	(0.014)				
Persist (Y4)	0.016	-0.008	0.002	-0.017	-0.029	-0.011	-0.025	-0.041
	(0.016)	(0.009)	(0.033)	(0.018)	(0.028)	(0.018)	(0.040)	(0.025)
Graduate (4 Years)	0.046**	0.007	-0.009	0.034	-0.041	-0.006	0.001	0.035
	(0.023)	(0.014)	(0.048)	(0.027)	(0.042)	(0.029)	(0.061)	(0.040)
N	55,788	133,473	47,422	110,509	39,826	83,940	38,129	79,305
Graduate (6 Years)	-0.026	0.012	-0.019	-0.033	-0.117***	-0.027	-0.167***	-0.107***
	(0.021)	(0.014)	(0.045)	(0.028)	(0.030)	(0.022)	(0.043)	(0.030)
Bachelor's Degree	-0.026	-0.012	0.048	-0.061**	-0.028	-0.043**	0.020	-0.114***
	(0.019)	(0.013)	(0.040)	(0.026)	(0.026)	(0.019)	(0.037)	(0.026)
Grad School	-0.007	0.015	-0.005	0.009	-0.045	-0.002	0.006	0.008
Attendance	(0.024)	(0.014)	(0.055)	(0.030)	(0.048)	(0.033)	(0.073)	(0.048)
N	35,828	87,341	29,754	70,607	24,636	52,767	23,344	49,300

Notes: This table reports diff.-in-disc. estimates of the effects of eligibility loss on persistence and graduation outcomes by institution tuition cap status for all students included in the analysis and those in the credit specification. Four-year graduation rates include all cohorts; six-year graduation rates and degree attainment omit the fall 2017 and 2018 entry cohorts. *p<0.10; **p<0.05; ***p<0.01.

Table 9. Results By University Tuition Cap

At the third-year benchmark, there are no effects on persistence or four-year graduation rates. However, six-year graduation rates decline in both capped specifications and in the credit specification at uncapped institutions. In contrast, reductions in degree attainment appear in both the main (4.3 pp) and credit (11.4 pp) specification at uncapped institutions only. These results for degree attainment suggest that higher marginal costs at uncapped institutions may exacerbate the effects of eligibility loss on longer-run completion outcomes, potentially by limiting students' ability to maintain or accelerate progress toward a degree.

7.2 First-Generation Status

To further explore heterogeneity, I examine differences by first-generation status,[11] as they may be especially vulnerable to disruptions in financial aid due to more limited access to institutional knowledge and support systems (Pascarella et al., 2004; Unverferth et al., 2012; Ko et al., 2025). Table 10 reports estimates separately by first-generation status, revealing notable differences in both the timing and margins along which students respond to eligibility loss.

	Second-Year Benchmark				**Third-Year Benchmark**			
	Main		**Credit**		**Main**		**Credit**	
	First Gen.	**Not First Gen.**	**First Gen.**	**Not First Gen.**	**First Gen.**	**Not First Gen.**	**First Gen.**	**Not First Gen.**
Persist (Y3)	-0.004	-0.015**	-0.033	-0.042***				
	(0.016)	(0.007)	(0.033)	(0.014)				
Persist (Y4)	-0.030	0.005	-0.088*	0.005	-0.079*	-0.003	-0.129**	-0.024
	(0.022)	(0.009)	(0.045)	(0.017)	(0.041)	(0.017)	(0.060)	(0.023)
Graduate (4 Years)	-0.042	0.024*	-0.089	0.045*	0.054	-0.026	0.075	0.015
	(0.031)	(0.013)	(0.066)	(0.026)	(0.061)	(0.027)	(0.091)	(0.037)
N	26,385	162,966	21,183	136,826	15,126	108,676	14,162	103,308
Graduate (6 Years)	-0.054*	0.015	-0.095	-0.020	-0.055	-0.042**	-0.067	-0.135***
	(0.030)	(0.013)	(0.062)	(0.026)	(0.046)	(0.020)	(0.067)	(0.027)
Bachelor's Degree	-0.082***	-0.002	-0.152***	-0.019	-0.024	-0.036**	-0.019	-0.099***
	(0.028)	(0.012)	(0.057)	(0.024)	(0.040)	(0.017)	(0.058)	(0.023)
Grad School	0.011	0.007	-0.036	0.023	-0.024	-0.012	0.074	-0.011
Attendance	(0.029)	(0.014)	(0.063)	(0.030)	(0.062)	(0.031)	(0.095)	(0.045)
N	19,074	104,182	15,155	85,281	10,824	66,615	10,042	62,638

Notes: This table reports diff.-in-disc. estimates of the effects of eligibility loss on persistence and graduation outcomes by student first-generation status for all students included in the analysis and those in the credit specification. Four-year graduation rates include all cohorts; six-year graduation rates and degree attainment omit the fall 2017 and 2018 entry cohorts. *p<0.10; **p<0.05; ***p<0.01.

Table 10. Outcomes By First-Generation Status

At the second-year benchmark, the initial decline in persistence is concentrated among non-first-generation students (1.5 pp in the main specification and 4.2 pp in the credit specification), while reductions in degree attainment appear only among first-generation students (8.2 pp; 15.2 pp). This pattern reverses at the third-year benchmark. Here, the initial decline in persistence is concentrated among first-generation students (7.9 pp; 12.9 pp), while negative effects on degree attainment occur only among non-first-generation students (3.6 pp; 9.9 pp). The reversal across renewal points makes it difficult to attribute these differences

[11] First-generation status is derived from parent education records. Students are classified as first-generation if neither parent attended college, and as non-first-generation if at least one parent did. Students are excluded if one parent's education is unknown and the other did not attend college, or if both are missing. As a result, the combined sample size is smaller than in the main analysis.

to systematic variation in financial resources or other factors typically associated with first-generation status. Instead, the estimates reveal that heterogeneity by first-generation status is not stable across contexts and should therefore be interpreted cautiously.

7.3 Adjusted Gross Income Terciles

I next turn to heterogeneity by family income, measured using AGI terciles among TEXAS Grant recipients, as students with fewer financial resources may be more vulnerable to losing eligibility. Recipients are divided into terciles based on first-year AGI, with ranges of \$0-\$18,687, \$18,688-\$35,690, and \$35,691+ for the second-year analysis and \$0-\$16,942, \$16,943-\$32,006, and \$32,007+ for the third-year analysis. Recipients in each tercile are compared to the full sample of non-recipients.[12]

	Second-Year Benchmark						**Third-Year Benchmark**					
	Main			**Credit**			**Main**			**Credit**		
	T1	**T2**	**T3**	**T1**	**T2**	**T3**	**T1**	**T2**	**T3**	**T1**	**T2**	**T3**
Persist (Y3)	-0.004	-0.027***	-0.009	-0.020	-0.049***	-0.040**						
	(0.009)	(0.009)	(0.010)	(0.018)	(0.018)	(0.019)						
Persist (Y4)	-0.001	-0.001	-0.002	-0.030	0.000	-0.008	-0.011	-0.022	-0.013	-0.008	-0.066**	-0.043
	(0.012)	(0.012)	(0.012)	(0.023)	(0.022)	(0.023)	(0.022)	(0.023)	(0.025)	(0.030)	(0.033)	(0.033)
Graduate (4 Years)	0.040**	0.009	0.002	0.063*	0.027	-0.009	-0.006	0.027	-0.061	0.050	0.072	-0.045
	(0.018)	(0.018)	(0.018)	(0.035)	(0.035)	(0.036)	(0.034)	(0.037)	(0.039)	(0.047)	(0.053)	(0.052)
N	147,662	147,660	147,657	124,142	124,319	124,698	100,130	100,127	100,125	95,149	95,145	95,256
Graduate (6 Years)	0.039**	-0.003	-0.032*	0.017	-0.056*	-0.053	-0.049**	-0.026	-0.091***	-0.063*	-0.124***	-0.197***
	(0.017)	(0.017)	(0.017)	(0.034)	(0.034)	(0.034)	(0.024)	(0.026)	(0.027)	(0.033)	(0.038)	(0.036)
Bachelor's Degree	0.016	-0.020	-0.045***	0.028	-0.075**	-0.066**	-0.051**	-0.007	-0.054**	-0.049*	-0.062*	-0.119***
	(0.016)	(0.016)	(0.016)	(0.031)	(0.030)	(0.031)	(0.021)	(0.023)	(0.023)	(0.029)	(0.033)	(0.031)
Grad School	0.017	0.011	0.000	0.017	0.015	-0.017	-0.031	-0.021	0.008	0.005	-0.019	0.030
Attendance	(0.018)	(0.018)	(0.019)	(0.039)	(0.038)	(0.040)	(0.039)	(0.042)	(0.044)	(0.056)	(0.065)	(0.062)
N	96,533	96,531	96,530	79,246	79,389	79,611	62,817	62,814	62,812	59,055	59,056	59,135

Notes: This table reports diff.-in-disc. estimates of the effects of eligibility loss on persistence and graduation outcomes by first-year adjusted gross income (AGI) tercile for all students included in the analysis and those in the credit specification. Four-year graduation rates include all cohorts; six-year graduation rates and degree attainment omit the fall 2017 and 2018 entry cohorts. *p<0.10; **p<0.05; ***p<0.01.

Table 11. Results By AGI Tercile

Across both renewal benchmarks in Table 11, declines in degree attainment are most consistently concentrated among students in the highest AGI tercile. At the second-year benchmark, reductions in degree attainment appear only for the top tercile in the main specification (4.5 pp), while in the credit specification they extend to the top two terciles (7.5 pp and 6.6 pp). At the third-year benchmark, this pattern becomes more pronounced: the top tercile again exhibits sizable declines in both specifications (5.4 pp in the main and 11.9 pp in the credit specification), though some estimates for lower terciles are also significant. The stronger effects among higher-income recipients may reflect that they are less likely to qualify for other need-based aid, which limits their ability to replace lost grant

[12] AGI is only observed for aid recipients, so terciles are constructed only for recipients.

aid and results in a larger net reduction in financial resources when eligibility is lost.

7.4 Cumulative GPA Terciles

Finally, to assess whether the negative effects observed in the credit specification differ by academic performance level, I partition students by cumulative GPA at each renewal benchmark. Students are divided into cumulative GPA terciles, defined based on the distribution among recipients and then applied to all students, with ranges of 2.5-2.94, 2.95-3.36, and 3.36+ at the second-year benchmark and 2.5-3.08, 3.09-3.47, and 3.47+ at the third-year benchmark.

	Second-Year Benchmark			**Third-Year Benchmark**		
	T1	**T2**	**T3**	**T1**	**T2**	**T3**
Persist (Y3)	-0.006	-0.099***	-0.082			
	(0.015)	(0.025)	(0.069)			
Persist (Y4)	-0.007	0.000	-0.153*	-0.001	-0.074**	-0.030
	(0.019)	(0.032)	(0.087)	(0.023)	(0.033)	(0.095)
Graduate (4 Years)	0.031	0.038	-0.163	-0.027	0.035	0.051
	(0.027)	(0.050)	(0.128)	(0.043)	(0.060)	(0.128)
N	43,191	48,436	66,382	20,454	35,197	61,819
Graduate (6 Years)	0.005	-0.076	-0.148	-0.149***	-0.073	0.006
	(0.033)	(0.051)	(0.132)	(0.045)	(0.046)	(0.084)
Bachelor's Degree	0.003	-0.121***	-0.044	-0.074*	-0.091**	0.055
	(0.030)	(0.046)	(0.120)	(0.039)	(0.039)	(0.072)
Grad School	0.010	-0.015	-0.162	0.039	-0.131*	0.241
Attendance	(0.027)	(0.057)	(0.199)	(0.042)	(0.069)	(0.212)
N	30,103	32,196	38,137	14,686	23,410	34,584

Notes: This table reports diff.-in-disc. estimates of the effects of eligibility loss on persistence and graduation outcomes by cumulative GPA terciles at time of benchmark for those in the credit specification. Four-year graduation rates include all cohorts; six-year graduation rates and degree attainment omit the fall 2017 and 2018 entry cohorts. *p<0.10; **p<0.05; ***p<0.01.

Table 12. Results By Cumulative GPA Tercile

As shown in Table 12, declines in persistence and degree attainment do not occur among students with the highest GPAs. Instead, students in the middle of the distribution are most negatively affected. At the second-year benchmark, third-year persistence falls by 9.9 pp and degree attainment falls by 12.0 pp, with a similar pattern observed at the third-year benchmark (7.4 pp and 9.1 pp, respectively). Estimates for the lowest tercile are smaller, with no significant effects on persistence and only marginally significant effects on degree attainment at the third-year benchmark. Thus, the negative effects observed in the credit specification are not driven by students just above the GPA threshold, but are instead driven by students in the middle of the GPA distribution who have relatively strong academic performance.

8 Robustness Checks

To assess the sensitivity of these findings, I conduct a series of robustness checks for persistence and graduation outcomes for both the main and credit specifications. Tables 13 and 14 report results from alternative specifications that vary bandwidth choices and the construction of the running variable at each benchmark.

	Smaller BW		**Larger BW**		**Reduced**
	Main	**Credit**	**Main**	**Credit**	**Main**
Persist (Y3)	-0.018**	-0.044***	-0.010*	-0.025**	-0.010
	(0.008)	(0.016)	(0.005)	(0.010)	(0.008)
Persist (Y4)	-0.006	-0.044**	-0.001	-0.021	-0.008
	(0.010)	(0.020)	(0.007)	(0.014)	(0.010)
Graduate (4 Years)	0.010	0.030	0.025**	0.019	0.012
	(0.014)	(0.029)	(0.010)	(0.020)	(0.015)
N	132,715	108,401	261,954	227,941	100,242
Graduate (6 Years)	-0.004	-0.069**	-0.005	-0.061***	0.011
	(0.015)	(0.030)	(0.010)	(0.019)	(0.016)
Bachelor's Degree	-0.029**	-0.082***	-0.018**	-0.061***	-0.015
	(0.014)	(0.028)	(0.009)	(0.018)	(0.015)
Grad School	0.011	-0.007	0.006	-0.013	0.023
Attendance	(0.015)	(0.032)	(0.011)	(0.024)	(0.015)
N	86,707	68,864	168,157	143,627	66,767

Notes: This table reports robustness checks using alternative bandwidths and a single running variable. Columns (1)-(2) use narrower bandwidths, columns (3)-(4) use wider bandwidths, and column (5) implements the one-dimensional diff.-in-disc.. Four-year graduation rates include all cohorts; six-year graduation rates and degree attainment omits the fall 2017 and 2018 entry cohorts. *p<0.10; **p<0.05; ***p<0.01.

Table 13. Robustness Checks: Second-Year Benchmark

The first four columns examine sensitivity to alternative bandwidths. Columns 1 and 2 use narrower bandwidths (3 credits around the credit threshold and 0.2 GPA points around the GPA threshold), while columns 3 and 4 use wider bandwidths (7 credits; 0.4 GPA points).[13] The final column implements a single running variable approach using a standardized measure of distance from the two renewal thresholds. For each student, I calculate the standardized distance to both the GPA and credit completion cutoffs and use the smaller of the two as the running variable. This approach reflects the fact that students lose eligibility if they fall below either threshold, enabling estimation of an overall effect within a single-

[13] I do not extend bandwidths beyond these values, as students who fail more than 8 credits or fall more than 0.5 GPA points below the threshold may begin to trigger SAP violations.

dimensional diff.-in-disc. framework. The optimal bandwidth for this specification is 0.46 standard deviations for the second-year benchmark, which corresponds to 2 passed credits and 0.22 GPA points, and 0.76 standard deviations for the third-year benchmark (3 credits; 0.30 GPA points).

Results for the second-year benchmark in Table 13 are broadly similar across specifications. Using smaller bandwidths yields comparable effects on third-year persistence, while also introducing significant declines in degree attainment and larger effects for the credit specification across several outcomes. Expanding the bandwidth produces the same pattern, with estimates that are generally comparable or somewhat larger in magnitude. The reduced specification yields estimates that are similar in sign and magnitude, though the effect on third-year persistence is no longer significant. The decline in degree attainment remains consistent across specifications, even as estimates for other outcomes vary somewhat.

	Smaller BW		**Larger BW**		**Reduced**
	Main	**Credit**	**Main**	**Credit**	**Main**
Persist (Y4)	-0.013	-0.037	0.005	0.006	-0.013
	(0.018)	(0.027)	(0.013)	(0.017)	(0.016)
Graduate (4 Years)	-0.007	0.051	0.021	0.058**	-0.002
	(0.027)	(0.043)	(0.020)	(0.028)	(0.025)
N	91,149	83,883	184,315	172,952	96,342
Graduate (6 Years)	-0.036*	-0.103***	-0.024*	-0.075***	-0.023
	(0.021)	(0.033)	(0.014)	(0.019)	(0.019)
Bachelor's Degree	-0.034*	-0.069**	-0.015	-0.046***	-0.019
	(0.018)	(0.029)	(0.012)	(0.016)	(0.017)
Grad School	-0.008	0.027	-0.011	0.006	-0.009
Attendance	(0.030)	(0.050)	(0.024)	(0.034)	(0.028)
N	56,861	51,349	115,932	107,527	60,800

Notes: This table reports robustness checks using alternative bandwidths and a single running variable. Columns (1)-(2) use narrower bandwidths, columns (3)-(4) use wider bandwidths, and column (5) implements the one-dimensional diff.-in-disc.. Four-year graduation rates include all cohorts; six-year graduation rates and degree attainment omit the fall 2017 and 2018 entry cohorts. *p<0.10; **p<0.05; ***p<0.01.

Table 14. Robustness Checks: Third-Year Benchmark

Estimates at the third-year benchmark shown in Table 14 continue to show declines in degree attainment in the credit specification, even as a few other estimates become smaller and are no longer significant. Using smaller bandwidths produces results close to the main estimates, though the effect on fourth-year persistence in the credit specification is no longer marginally significant. Larger bandwidths yield some attenuation in bachelor's degree attainment in the main specification and fourth-year persistence in the credit specification, while estimates in the reduced specification are all insignificant.

9 Conclusion

Loss of eligibility for the TEXAS Grant leads to meaningful disruptions that vary depending on when in college eligibility is lost. At the second-year renewal checkpoint, ineligibility reduces third-year persistence and enrollment intensity, but there is little evidence of effects on timely graduation rates or degree attainment. In contrast, at the third-year checkpoint, there is no change in immediate enrollment choices, but there are substantial declines in timely graduation rates and degree completion, indicating that eligibility loss later in college is more difficult to recover from than earlier disruptions. This pattern underscores the importance of how renewal policies are structured at later stages of college.

Across both renewal points, the effects of ineligibility are largest for students who fall short of only the credit completion requirement. These students are in otherwise strong academic standing, showing that the consequences of ineligibility at this threshold are unlikely to be driven by underlying academic struggles. Instead, this points to financial constraints as a central mechanism: these students have accumulated substantial credits and have relatively strong GPAs at the time of exit, but still do not complete a degree. In this context, the credit completion requirement treats a narrow shortfall as evidence of insufficient progress even among students with high GPAs, raising concerns about how renewal rules determine which students lose access to continued support.

This study contributes to the financial aid literature by moving beyond first-year benchmarks to examine how mid-college eligibility loss affects student trajectories. In contrast to the existing literature that focuses on merit-based programs and first-year checkpoints, this paper examines a need-based program and eligibility loss later in college. Another key contribution is showing that the most damaging impacts of eligibility loss occur for students who fall short of only the credit completion requirement—even though they are otherwise high-achieving—suggesting that this threshold may not effectively identify students who are not making progress toward a degree. This margin is largely unexplored in the current literature, which typically focuses on GPA-based renewal thresholds and often conditions on credit attempted requirements for identification, highlighting how the choice of renewal criteria can shape student outcomes.

Relative to the extensive literature showing that financial aid receipt improves enrollment, persistence, and graduation, these findings demonstrate that losing eligibility for aid can partially reverse these gains. For example, Castleman and Long (2016) finds that expanding access to the FSAG increased six-year graduation rates by 4.6 pp (22%), while Denning et al. (2019) finds a 3.4 pp (9%) increase from expanded Pell Grant access. For comparison, this study finds effects as large as a 12.4 pp (16%) decline in six-year graduation rates (third-year benchmark; credit specification). Although the absolute effect is larger here, recipients who retain eligibility have high baseline graduation rates, yielding a comparable percent change. In this context, disruptions to expected financial support—particularly after students have made substantial academic progress—can offset a meaningful portion of the benefits associated with financial aid receipt, underscoring the importance of maintaining continuity in financial support throughout students' academic careers.

9.1 Policy Implications

These findings have direct implications for the design of financial aid renewal policies, particularly in balancing academic standards with sustained progress toward degree completion. While maintaining academic standards is important, the structure of TEXAS Grant renewal requirements—particularly the credit completion requirement—may not fully align with the goal of promoting degree completion. One potential policy reform is the introduction of a probationary period following eligibility loss. Under such a policy, students who narrowly miss renewal requirements could remain eligible for one additional year, with continued eligibility contingent on meeting both GPA and credit benchmarks at the end of that period. A related policy would allow students who lose eligibility to regain it later if they satisfy the requirements at the next renewal checkpoint.

Notably, many students who become ineligible meet subsequent renewal requirements. Among the 10,167 students who lost eligibility after the second year in this analysis, 4,039 (40%) subsequently met both renewal thresholds at the end of the third year. This figure likely understates the potential scope of a requalification policy given the impact of eligibility loss on full-time enrollment. Allowing students to maintain or regain eligibility based on demonstrated progress could help preserve financial support for those recovering from temporary setbacks and support continued progress toward degree completion. While this study cannot directly estimate the effects of regaining eligibility, the documented consequences of eligibility loss suggest that restoring support could mitigate some of the adverse academic and enrollment impacts.

Additionally, policymakers could consider modifying the credit completion requirement. One approach, used in many other aid programs, would be to base eligibility on credits attempted rather than credits passed. Because the program also maintains performance standards through the GPA requirement, changing to an attempted-credit rule would reduce the likelihood of full-time students losing eligibility due to an isolated setback. A second approach would align renewal criteria with federal SAP standards, which require students to complete at least two-thirds of their attempted credits. This framework allows for some course failure while still requiring consistent progress toward a degree, providing a more flexible and potentially more informative signal of student progress toward degree completion.

As an alternative to modifying the credit completion metric, policymakers could consider introducing a one-time course failure waiver. In this policy, students who attempt a full-time course load but narrowly miss the 24-credit requirement for the first time would retain TEXAS Grant eligibility. By allowing students to remain eligible after one failed course, such a waiver could reduce short-run disengagement and help preserve academic momentum during a critical stage of degree progression.

In terms of scope, a one-time course failure waiver would apply to a meaningful number of students. Among recipients who lose eligibility in the credit specification, 2,011 students after the second year and 972 after the third year would have retained eligibility under such a policy. Applying the estimated effects of eligibility loss on degree completion, this policy could have yielded approximately 150 additional bachelor's degrees.[14] Given that the TEXAS Grant is designed to promote college access and continued progress toward a degree for low-income students, a targeted waiver of this kind may better align renewal rules with the program's objectives without requiring broad eligibility expansions or changes to renewal requirements.

9.2 Future Research

While this study provides important new evidence on the consequences of eligibility loss, future research should examine how these effects vary across financial aid programs with different renewal structures. In particular, programs use a wide range of GPA thresholds and credit requirements, and it remains unclear whether the effects of eligibility loss differ across these design features. For example, the effects on degree completion for students who narrowly miss the TEXAS Grant credit completion requirement may not generalize to programs in which eligibility loss is driven by insufficient credits attempted.

Beyond eligibility loss driven by academic renewal benchmarks, future research should also examine the broader landscape of financial aid disruptions. Many students lose eligibility for reasons unrelated to academic performance, such as modest increases in family income that push them above need-based eligibility cutoffs or administrative barriers like failing to complete the FAFSA. These forms of eligibility loss represent distinct sources of disruptions, and understanding how they affect student outcomes is essential for designing policies that promote both access and stability in financial aid systems.

As financial aid programs evolve, policymakers must look beyond access alone and consider how program structures influence outcomes after initial enrollment. The evidence pre-

[14] $(2011 \times 0.037) + (972 \times 0.075) = 147.31$.

sented here highlights that eligibility loss can affect students well beyond the point of initial access. This study focuses on short- and medium-run academic outcomes, but future research should also examine longer-term consequences, including major choice, labor market outcomes, and earnings. Understanding how these impacts unfold over time is critical for evaluating the full impact of financial aid policies. An equally important direction for future research is to examine how realized aid loss affects these outcomes.

While more work is needed to understand the full range of aid disruptions, this study points to the importance of closely examining how renewal criteria shape students' experiences later in college. Renewal rules necessarily impose structure and accountability, but they also interact with students' financial circumstances, academic pathways, and institutional constraints in complex ways. Designing renewal policies that better accommodate student progress while maintaining clear academic standards is therefore critical. Ultimately, the purpose of financial aid is not just to open the door to college, but to support students throughout their education. Policies that better account for the realities of student progress—particularly temporary setbacks—could help ensure that financial aid more fully supports students through to degree completion.

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