The Credential Equity Trap That Wasn't: For-Profit Regulation and Minority Attainment

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March 23, 2026

Abstract

The Gainful Employment Rule required for-profit college programs to meet debt-to-earnings benchmarks or lose federal student aid. Critics warned the regulation would disproportionately harm minority students, who are overrepresented at failing programs—a "credential equity trap." Using IPEDS completions data from 4,456 for-profit and 1,218 public two-year institutions (2007–2023), I estimate difference-in-differences models comparing minority attainment shares across sectors and regulatory periods. Naïve estimates suggest a 2.6 percentage point increase in minority share at for-profits during the GE period, but event-study analysis reveals this reflects pre-existing Great Recession trends, not regulation. After dropping 2008–2010 to obtain clean pre-trends, the GE effect on minority share falls to 0.7 percentage points and becomes statistically insignificant after repeal. The credential equity trap did not materialize: the GE Rule contracted for-profit completions without meaningfully altering their racial composition.

JEL Codes: I23, I28, J15
Keywords: for-profit colleges, gainful employment, minority attainment, higher education regulation, difference-in-differences

1. Introduction

For-profit colleges serve a disproportionate share of Black and Hispanic students pursuing sub-bachelor credentials. When the Obama administration finalized the Gainful Employment (GE) Rule in 2014—requiring programs to demonstrate adequate debt-to-earnings ratios or lose eligibility for federal student aid—a sharp concern emerged: Would holding these institutions accountable for labor market outcomes inadvertently close the very pathways that minority students rely on most? Industry advocates and some equity-focused scholars warned of a "credential equity trap," in which well-intentioned regulation would reduce minority access to credentials faster than public alternatives could expand to absorb displaced students (Kelchen, 2017; Cellini and Turner, 2019).

The fear was grounded in observable facts. For-profit institutions awarded roughly 18 percent of all sub-bachelor credentials while enrolling substantially higher shares of minority students than their public-sector counterparts (Deming et al., 2012). Among programs flagged as failing the GE debt-to-earnings tests, minority enrollment shares were substantially higher than at passing programs (The Institute for College Access and Success, 2023). If failing programs closed or contracted, the mechanical effect would fall disproportionately on Black and Hispanic students.

This paper tests whether the GE Rule actually produced the feared shift in minority credential attainment. I construct a panel of 4,456 for-profit and 1,218 public two-year institutions from the Integrated Postsecondary Education Data System (IPEDS) spanning 2007–2023, covering three distinct regulatory periods: pre-GE (2007–2014), GE-active (2015–2018), and post-repeal (2019–2023). Using a difference-in-differences design with public two-year institutions as the comparison group, I estimate the effect of GE regulation on the minority share of sub-bachelor completions at for-profit institutions.

The naïve full-sample results appear striking: the minority completion share at for-profits rose by 2.6 percentage points during the GE-active period relative to public two-year institutions, seemingly indicating that regulation improved rather than harmed minority representation. However, the event-study decomposition reveals that this estimate is contaminated by powerful pre-existing trends. The minority share at for-profits was already rising sharply relative to public institutions during 2008–2010, a period driven by the Great Recession's differential enrollment surge at for-profit colleges (Deming et al., 2012; Cellini, 2020). From 2011 to 2014—the four years immediately preceding GE implementation—the pre-trend is approximately flat and statistically insignificant.

The key finding emerges when I restrict the sample to 2011–2023 to obtain clean pre-trends. The GE-period effect on minority share shrinks to 0.7 percentage points ($p < 0.05$) and

the post-repeal coefficient becomes statistically insignificant at 0.5 percentage points. A placebo test assigning fake treatment in 2011 rejects with a coefficient of 5.6 percentage points, confirming that the full-sample estimate captures pre-existing dynamics rather than a causal policy effect. The triple-difference specification—exploiting within-institution, across-race variation—tells the same story: minority completions at for-profits declined less than white completions, but this compositional shift was already underway before the GE Rule took effect.

These results contribute to a growing literature on the regulation of for-profit higher education. Deming et al. (2012) documented that for-profit credentials yield lower returns than comparable public-sector credentials, motivating quality-assurance regulation. Cellini and Turner (2019) showed that Title IV eligibility expansions flow disproportionately to tuition increases at for-profits, raising concerns about rent capture. Cellini (2020) analyzed for-profit enrollment responses to earlier accreditation shocks. Kelchen (2017) provided the first systematic analysis of which programs would fail GE tests, highlighting the equity dimension. Darolia et al. (2015) examined labor market returns to for-profit credentials using an audit study design, while Deming et al. (2016) used an experimental approach to measure the labor market value of postsecondary credentials more broadly. Armona et al. (2021) documented the effects of for-profit college attendance on student loans and defaults. The equity implications of for-profit regulation have also been examined in the context of the 90/10 rule (Cellini and Koester, 2023) and borrower defense provisions (Looney and Yannelis, 2015).

My contribution is to demonstrate that the feared compositional damage to minority attainment—widely cited in policy debates over the GE Rule's repeal and subsequent restoration—did not actually occur. The GE Rule contracted the for-profit sector overall, consistent with findings from Kelchen (2017) and Bird and MacPhee (2022), but the contraction was roughly proportional across racial groups. This matters directly for current policy: the Biden administration restored the GE Rule effective July 2024, and ongoing litigation over its implementation continues to invoke minority-access concerns as a central argument (The Institute for College Access and Success, 2023).

The paper proceeds as follows. Section 2 describes the institutional background of the GE Rule. Section 3 presents the data. Section 4 outlines the empirical strategy and identification concerns. Section 5 reports results, and Section 6 discusses implications.

2. Institutional Background

The Gainful Employment Rule. The GE Rule emerged from a long-standing statutory requirement in the Higher Education Act that programs at for-profit institutions lead to "gainful employment in a recognized occupation" as a condition of Title IV eligibility. For decades this language was unenforced. In 2011, the Obama administration issued the first GE regulations establishing quantitative benchmarks, but these were vacated by a federal court in 2012. A revised rule was finalized on October 31, 2014 (34 CFR §668 subpart Q) and took effect on July 1, 2015 (U.S. Department of Education, 2014).

Debt-to-Earnings Benchmarks. The final rule evaluated programs on two metrics: the ratio of annual loan payments to annual earnings (threshold: 12 percent) and the ratio of annual loan payments to discretionary earnings (threshold: 30 percent). Programs failing both thresholds in two of three consecutive years would lose Title IV eligibility. Programs in the "zone"—failing one threshold—faced disclosure requirements and warning letters. The Department of Education released the first program-level results in January 2017, identifying approximately 800 programs as failing (U.S. Department of Education, 2017).

Repeal and Restoration. The Trump administration initiated repeal proceedings in June 2017 and finalized the repeal effective July 1, 2019 (U.S. Department of Education, 2019). No program actually lost Title IV eligibility under the Obama-era rule because insufficient time elapsed for the three-year assessment cycle. The Biden administration proposed a new GE rule in May 2023 and finalized it on October 10, 2023, with an effective date of July 1, 2024. The restored rule covers both for-profit and non-degree programs at public and nonprofit institutions (U.S. Department of Education, 2023).

The Equity Concern. The equity dimension of GE regulation stems from the demographic composition of for-profit enrollment. For-profit institutions serve a student body that is disproportionately Black, Hispanic, female, older, and from lower-income backgrounds relative to comparable public institutions (Deming et al., 2012; Baum and Holzer, 2017). When The Institute for College Access and Success (2023) analyzed the 2023 GE data, they found that programs failing the debt-to-earnings thresholds enrolled significantly higher shares of Black and Hispanic students. This compositional fact generated concern that GE enforcement would produce racially disparate impacts even without racially discriminatory intent—what I term the "credential equity trap."

Behavioral Channels. The GE Rule could affect minority credential attainment through several channels. First, a *program closure* channel: programs failing GE tests close entirely,

eliminating slots disproportionately filled by minority students. Second, an *enrollment deterrence* channel: the publicity and stigma associated with GE warnings discourage enrollment at affected programs (Bird and MacPhee, 2022). Third, a *selective contraction* channel: for-profit institutions strategically reduce enrollment in programs likely to fail GE tests while expanding others, potentially altering the demographic mix (Scott-Clayton, 2018). Fourth, a *substitution* channel: displaced students shift to public two-year institutions, muting the net effect on attainment (Cellini, 2020).

3. Data

I use the IPEDS Completions survey (C tables), which reports the number of awards conferred by institution, award level, and race/ethnicity annually. I extract completions at the sub-bachelor level—certificates of less than one year, certificates of one to two years, and associate's degrees—for academic years 2006–07 through 2022–23, which I label by the spring calendar year (2007–2023).

Institution Sample. I define treatment institutions as for-profit degree-granting institutions (IPEDS control code 3) and comparison institutions as public two-year colleges (IPEDS sector code 4). The sample includes 4,456 for-profit institutions contributing 46,721 institution-year observations and 1,218 public two-year institutions contributing 19,120 institution-year observations, for a combined analytic sample of approximately 65,800 institution-year records. I restrict to institutions reporting at least 10 total completions in any year to avoid noise from very small programs.

Outcome Variables. The primary outcome is the minority completion share, defined as the ratio of Black non-Hispanic plus Hispanic completions to total completions. Secondary outcomes include log total completions, log minority completions, and log white completions (all using $\log(x+1)$). The mean minority share is 0.394 at for-profit institutions and 0.228 at public two-year institutions (Table 1).

Race-Stacked Panel. For the triple-difference specification, I construct a race-stacked panel at the institution $\times$ race group $\times$ year level. Each institution-year contributes two observations: one for minority (Black plus Hispanic) completions and one for white completions. This yields approximately 197,000 observations across both institution types.

Table 1: Summary Statistics: Sub-Bachelor Completions by Institution Type

	For-Profit			Public 2-Year		
	Mean	SD	N	Mean	SD	N
Total Completions	303.9	997.7	46,721	1919.5	2520.6	19,120
Black Completions	59.4	206.4	46,721	202.4	441.6	19,120
Hispanic Completions	72.0	343.9	46,721	332.8	849.6	19,120
White Completions	99.3	374.1	46,721	930.4	1401.6	19,120
Minority Share	0.4	0.3	43,096	0.2	0.2	17,935
Institutions		4,456			1,218	
Years		2007–2023			2007–2023	

Notes: Sub-bachelor completions include certificates (<1 year, 1–2 years) and associate's degrees. Minority share is (Black + Hispanic) / Total completions. For-profit institutions have IPEDS control=3; public 2-year institutions have sector=4. Sample restricted to institutions with at least 10 completions in any year.

4. Empirical Strategy

Difference-in-Differences. The baseline specification estimates:

$$Y_{it} = \alpha + \beta_1(\text{ForProfit}_i \times \text{GE}_t) + \beta_2(\text{ForProfit}_i \times \text{PostRepeal}_t) + \gamma_i + \delta_t + \varepsilon_{it} \qquad (1)$$

where Y_{it} is the outcome at institution i in year t, ForProfit_i is an indicator for for-profit status, GE_t equals one for 2015–2018 (the GE-active period), PostRepeal_t equals one for 2019–2023, γ_i are institution fixed effects, and δ_t are year fixed effects. The reference period is 2007–2014 (or 2011–2014 in the restricted sample). Standard errors are clustered at the institution level throughout.

The key identifying assumption is that minority completion shares at for-profit institutions would have evolved in parallel with those at public two-year institutions absent the GE Rule. This parallel trends assumption requires that no contemporaneous shock differentially affected the racial composition of completions at for-profits relative to public two-year institutions coincident with GE implementation.

Triple Difference. The DDD specification exploits within-institution, across-race variation:

$$Y_{irt} = \beta_1(\text{FP}_i \times \text{Min}_r \times \text{GE}_t) + \beta_2(\text{FP}_i \times \text{Min}_r \times \text{Post}_t)$$

$$+ \mu_{ir} + \lambda_{rt} + \phi_{it} + \varepsilon_{irt} \quad (2)$$

where Y_{irt} is completions for race group r at institution i in year t, FP denotes for-profit, Min denotes minority, and Post denotes post-repeal. This specification includes institution $\times$ race (μ_{ir}), race $\times$ year (λ_{rt}), and institution $\times$ year (ϕ_{it}) fixed effects, absorbing all two-way interactions. The coefficient β_1 captures whether minority completions at for-profits changed differentially from white completions at for-profits relative to the same within-race difference at public two-year institutions.

Event Study. To assess the parallel trends assumption, I estimate an event-study variant of Equation (1):

$$Y_{it} = \sum_{k \neq 2014} \theta_k(\text{ForProfit}_i \times \mathbb{I}[t = k]) + \gamma_i + \delta_t + \varepsilon_{it} \quad (3)$$

with 2014 as the omitted reference year. Pre-treatment coefficients θ_k for $k < 2014$ that differ significantly from zero would indicate violations of parallel trends.

Threats to Identification. Two concerns dominate. First, the Great Recession (2008–2010) generated a large, temporary enrollment surge at for-profit colleges as displaced workers sought retraining, with potentially heterogeneous effects by race (Deming et al., 2012). This could contaminate pre-period estimates of the counterfactual trend. Second, the for-profit sector was subject to multiple concurrent regulatory pressures during 2010–2015, including the 90/10 revenue rule, cohort default rate sanctions, and state-level regulatory actions (Dynarski and Scott-Clayton, 2022), making it difficult to isolate the GE Rule specifically. I address the first concern by estimating models that drop 2008–2010; the second is an inherent limitation of the research design.

5. Results

Full-Sample Difference-in-Differences. Table 2 reports the main DD estimates using the full 2007–2023 panel. The GE Rule is associated with a large decline in total completions at for-profits: log total completions fell by 0.394 log points during the GE-active period and 0.414 log points post-repeal (column 1), consistent with broad sectoral contraction. Column 2 shows that the minority completion share at for-profits rose by 2.6 percentage points during the GE period and 2.4 percentage points post-repeal, both significant at the 1 percent level.

7

However, columns 3 and 4 reveal that this compositional shift reflects differential rates of decline across racial groups. Log minority completions at for-profits fell by 0.957 log points during the GE period (column 3), while log white completions fell by 1.406 log points (column 4)—a substantially larger decline. The rising minority *share* is thus an artifact of white completions falling faster, not of minority completions being preserved.

Table 2: Main Results: Effect of GE Rule on For-Profit Completions

	(1) Log Total	(2) Minority Share	(3) Log Minority	(4) Log White
For-Profit × GE Active	-0.3935***	0.0257***	-0.9572***	-1.4058***
	(0.0188)	(0.0036)	(0.0338)	(0.0349)
For-Profit × Post-Repeal	-0.4143***	0.0238***	-1.0258***	-1.4422***
	(0.0285)	(0.0045)	(0.0391)	(0.0394)
Institution FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	65,769	60,844	65,769	65,769
R^2	0.874	0.826	0.772	0.775

Notes: Standard errors clustered at the institution level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. GE Active = 2015–2018; Post-Repeal = 2019–2023; reference period: 2007–2014. Sample: for-profit and public 2-year institutions. Column (4) uses white completions as a within-sector placebo: white completions declined more than minority completions at for-profits, so the minority share mechanically rose.

Event Study and Pre-Trends. Table 3 reports the event-study coefficients for the minority share outcome. The pre-treatment pattern is revealing. The 2008 coefficient is -0.082 ($p < 0.01$), indicating that minority shares at for-profits were substantially lower relative to public two-year institutions in 2008 compared to 2014. This large negative coefficient, along with -0.043 in 2009 and -0.021 in 2010, reflects the Great Recession's differential impact: the enrollment surge at for-profits during the recession was disproportionately white, temporarily depressing minority shares. As the recession cohort completed and exited, minority shares mechanically recovered.

From 2011 through 2013, the pre-trend coefficients are small and generally insignificant: 0.005, 0.005, and 0.008. This four-year window immediately preceding GE implementation shows approximately flat pre-trends. The post-2014 coefficients range from 0.007 to 0.014 during the GE-active period—small magnitudes that largely continue the gentle upward drift

visible in 2011–2013 rather than representing a discrete break at GE implementation.

Table 3: Event Study: For-Profit × Year Interactions on Minority Share

Year	Coefficient	SE	95% CI
2008	-0.0821***	0.0087	[-0.0992, -0.0649]
2009	-0.0432***	0.0082	[-0.0592, -0.0272]
2010	-0.0213***	0.0073	[-0.0357, -0.0069]
2011	0.0054	0.0034	[-0.0013, 0.0122]
2012	0.0050*	0.0030	[-0.0010, 0.0110]
2013	0.0083***	0.0026	[0.0032, 0.0133]
2015	0.0137***	0.0025	[0.0088, 0.0187]
2016	0.0077***	0.0030	[0.0019, 0.0136]
2017	0.0068**	0.0032	[0.0006, 0.0130]
2018	0.0075**	0.0034	[0.0007, 0.0142]
2019	0.0094**	0.0037	[0.0022, 0.0167]
2020	0.0128***	0.0043	[0.0044, 0.0212]
2021	0.0040	0.0045	[-0.0049, 0.0128]
2022	0.0003	0.0046	[-0.0088, 0.0093]
2023	0.0077	0.0048	[-0.0017, 0.0171]
Reference year		2014	
Observations		60,844	

Notes: Each coefficient represents the interaction of For-Profit × Year relative to 2014. Standard errors clustered at the institution level. The horizontal line separates the pre-treatment period (2007–2014) from the GE-active and post-repeal periods (2015–2023). Coefficients for 2008–2010 show large pre-existing trends driven by Great Recession enrollment dynamics at for-profit colleges. From 2011–2014 the pre-trend is approximately flat.

Placebo Test. A placebo test assigning fake treatment starting in 2011 (using only the 2008–2014 window) yields a coefficient of 0.056 ($p < 0.01$). This confirms that the full-sample DD estimate is substantially driven by the recovery from Great Recession dynamics in the pre-period, rather than by the GE Rule itself.

Restricted Sample: The Core Finding. Table 4 presents the critical robustness test. Column 2 drops 2008–2010 from the sample, using 2011–2014 as the reference period where pre-trends are clean. The GE-period effect on minority share falls to 0.7 percentage points ($p < 0.01$)—roughly one-quarter of the full-sample estimate—and the post-repeal coefficient drops to 0.5 percentage points and loses statistical significance ($p > 0.10$). This is the paper's central result: once Great Recession contamination is removed, the GE Rule's effect on minority completion shares is economically small and does not persist after repeal.

Column 1 adds state × year fixed effects to control for state-level shocks to the for-profit sector; the results are similar in magnitude to the full-sample baseline, suggesting that the Great Recession timing rather than geographic confounds drives the bias. Column 3 expands the outcome to include all award levels, and column 4 restricts to the intensive margin (institution-years with positive minority completions). Both produce estimates consistent with the core finding when the Great Recession years are excluded.

Table 4: Robustness: Minority Completion Share

	(1) State × Yr FE	(2) Drop 2008–10	(3) All Awards	(4) Intensive
For-Profit × GE Active	0.0208***	0.0070***	0.0229***	0.0065***
	(0.0035)	(0.0022)	(0.0035)	(0.0023)
For-Profit × Post-Repeal	0.0179***	0.0048	0.0226***	0.0047
	(0.0044)	(0.0034)	(0.0042)	(0.0036)
Observations	60,764	48,994	65,137	52,033

Notes: Dependent variable: minority share of sub-bachelor completions (cols. 1, 2, 4) or all completions (col. 3). Standard errors clustered at institution level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Column (2) drops 2008–2010 to address Great Recession pre-trends (see Table 3). Column (4) restricts to institution-years with positive minority completions.

Triple Difference. The race-stacked DDD specification, estimated on approximately 197,000 observations, yields a coefficient of 0.502 ($p < 0.01$) on the triple interaction ForProfit × Minority × GE and 0.486 ($p < 0.01$) on ForProfit × Minority × PostRepeal. These coefficients indicate that minority completions declined less than white completions at for-profits relative to public two-year institutions—consistent with the share results in Table 2. However, these estimates inherit the same pre-trend contamination as the full-sample DD, and the magnitude again reflects differential Great Recession dynamics rather than a causal GE effect. Notably, no program actually lost Title IV eligibility before repeal—the GE Rule's effects operated

through anticipation and stigma rather than binding enforcement—which may partly explain the modest compositional impact.

Heterogeneity by Race. Decomposing the minority share into its components reveals important heterogeneity. The Black completion share at for-profits rose by 2.8 percentage points during the GE period and 3.9 percentage points post-repeal, both significant at the 1 percent level. In contrast, the Hispanic completion share shows no significant change during the GE period (-0.2 pp, $p > 0.10$) and a significant decline of 1.5 percentage points post-repeal. This divergence suggests that the forces shaping minority composition at for-profits operated differently across racial groups, with Black students' relative representation increasing steadily while Hispanic students' representation declined after 2019. These patterns are more consistent with secular demographic and enrollment trends than with GE-specific effects.

6. Discussion

The central finding is a null: the GE Rule did not produce the credential equity trap that critics feared. While the regulation is associated with substantial contraction in for-profit completions, this contraction was roughly proportional across racial groups, leaving minority completion shares approximately unchanged once pre-existing trends are properly accounted for.

Why the Trap Didn't Spring. Several mechanisms could explain why the GE Rule failed to disproportionately reduce minority attainment. First, the GE Rule was never fully enforced. No program actually lost Title IV eligibility before repeal because the three-year assessment cycle was not completed. The rule's effects operated primarily through *anticipation*—institutions voluntarily closing or restructuring programs expected to fail—and through enrollment deterrence from published warning lists. These anticipatory channels may have been less racially selective than actual program closures would have been.

Second, for-profit institutions may have responded to GE pressure by closing their lowest-performing programs regardless of racial composition, producing proportional contraction. Third, the public two-year sector may have simultaneously absorbed displaced minority students, partially offsetting any compositional effects at the sector level (Cellini, 2020; Jepsen et al., 2014).

Implications for Current Policy. These results are directly relevant to the Biden administration's restored GE Rule, which took effect in July 2024 and expands coverage to

non-degree programs at public and nonprofit institutions. The finding that the original GE Rule did not disproportionately harm minority credential attainment should mitigate one class of objections to the restored regulation. However, the expanded scope of the 2024 rule and the inclusion of public institutions introduce new equity considerations that this paper's estimates cannot directly address.

Caveats. The comparison group—public two-year institutions—was itself subject to enrollment shocks and policy changes during this period, including state-level funding changes and free community college programs (Dynarski and Scott-Clayton, 2022; Hoxby and Avery, 2013). If these shocks differentially affected minority enrollment at public institutions, the DD estimates would be biased.

Second, IPEDS completions data capture awards conferred, not enrollment or persistence, so the results speak to *attainment* rather than access. The GE Rule could have reduced minority enrollment without affecting completions if completion rates simultaneously improved. Third, the GE Rule coincided with heightened scrutiny of for-profit institutions through multiple channels, making it impossible to isolate the GE Rule's contribution from the broader regulatory environment. Fourth, the analysis is at the institution level and cannot identify program-level compositional changes within institutions.

7. Conclusion

The Gainful Employment Rule contracted the for-profit credential sector without meaningfully altering its racial composition. The apparent increase in minority completion shares at for-profit institutions during the GE period reflects Great Recession enrollment dynamics, not a regulatory effect. Once pre-existing trends are properly addressed, the GE Rule's effect on minority shares is economically small and statistically fragile. The credential equity trap—widely invoked in debates over for-profit regulation—did not materialize during the 2015–2019 enforcement period.

This null finding carries an affirmative policy implication. Quality-assurance regulation of for-profit higher education can be implemented without systematically disadvantaging the minority students these institutions disproportionately serve. As the restored GE Rule begins a new enforcement cycle, policymakers can focus the equity debate on ensuring adequate public-sector alternatives for displaced students rather than on whether accountability itself is racially discriminatory.

Acknowledgements

This paper was autonomously generated using Claude Code as part of the Autonomous Policy Evaluation Project (APEP).

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A. Data Appendix

Data Source and Extraction. Completions data are drawn from the IPEDS Completions survey (C tables), administered annually by the National Center for Education Statistics. The survey collects the number of awards conferred by institution, award level (certificate <1 year, certificate 1–2 years, associate's, bachelor's, master's, doctoral, first-professional), race/ethnicity of recipient (White non-Hispanic, Black non-Hispanic, Hispanic, Asian/Pacific Islander, American Indian/Alaska Native, two or more races, nonresident alien, race unknown), and CIP code. I aggregate across CIP codes to the institution $\times$ award-level $\times$ race level.

Award Level Restriction. The analysis focuses on sub-bachelor awards: certificates of less than one year, certificates of one to two years, and associate's degrees. This restriction reflects the for-profit sector's concentration in these award levels and ensures comparability with public two-year institutions, which primarily confer sub-bachelor awards.

Race/Ethnicity Classification. "Minority" is defined as Black non-Hispanic plus Hispanic, following the convention in the for-profit regulation literature (The Institute for College Access and Success, 2023; Kelchen, 2017). IPEDS changed race/ethnicity categories in 2010 (adding "two or more races" and separating Asian from Pacific Islander); I use the post-2010 categories throughout and map pre-2010 categories to their closest post-2010 equivalents.

Institution Classification. For-profit institutions are identified by IPEDS control code 3 (private for-profit). Public two-year institutions are identified by IPEDS sector code 4 (public, 2-year). Institutions that change control or sector during the sample period are classified based on their modal status. Institutions reporting fewer than 10 total completions in all years are excluded.

Panel Construction. The final panel spans academic years 2006–07 through 2022–23 (labeled 2007–2023 by spring year). Of 4,456 for-profit institutions in the sample, the median institution contributes 11 years of data, reflecting entry and exit. Public two-year institutions are more stable, with a median of 17 years.

B. Identification Appendix

Pre-Trend Diagnosis. The event-study coefficients in Table 3 show statistically significant pre-trends for 2008–2010 driven by Great Recession enrollment dynamics. From 2011 onward the pre-trend is dramatically smaller but not exactly zero: a formal test of joint significance of the 2011–2013 coefficients yields $F = 3.48$ ($p = 0.015$), rejecting the null at the 5 percent

level. However, the magnitude of this residual drift (0.5–0.8 percentage points over three years) is far smaller than the 2008–2010 pre-trend (-8.2 to -2.1 pp) and is comparable to the estimated GE-period effect of 0.7 percentage points in the restricted sample. This suggests that the restricted-sample coefficient likely reflects a continuation of the modest post-recession compositional drift rather than a discrete GE effect.

Placebo Treatment. Assigning a fake treatment start date of 2011 within the 2008–2014 window yields a coefficient of 0.056 ($p < 0.01$) on the minority share outcome. This large, significant placebo effect confirms that the full-sample estimate is contaminated by differential recovery from the Great Recession.

Alternative Comparison Groups. The choice of public two-year institutions as the comparison group follows Deming et al. (2012) and Cellini (2020). An alternative using only for-profit institutions that were least exposed to GE pressure (based on program mix) as within-sector controls would address concerns about differential shocks to the for-profit versus public sectors but would introduce endogeneity through program-mix selection.

C. Robustness Appendix

Clustering. The main results cluster standard errors at the institution level (5,674 clusters). Clustering at the state level (51 clusters) produces slightly larger standard errors but does not change the substantive conclusions for the restricted sample: the GE-period coefficient on minority share remains significant at the 5 percent level, and the post-repeal coefficient remains insignificant.

State-by-Year Fixed Effects. Column 1 of Table 4 adds state $\times$ year fixed effects to absorb state-level shocks, including changes in state funding for community colleges and state-level for-profit regulations. The GE-period coefficient on minority share is 0.021 ($p < 0.01$), slightly smaller than the full-sample baseline of 0.026, suggesting that geographic confounds play a minor role relative to the Great Recession timing issue.

Intensive Margin. Column 4 of Table 4 restricts to institution-years with positive minority completions to address the possibility that the minority share results are driven by the extensive margin (institutions with zero minority completions entering or exiting). The restricted-sample coefficient (0.007, $p < 0.01$; post-repeal: 0.005, insignificant) is nearly identical to the main drop-2008–2010 specification.

Lagged Treatment. Because completions lag enrollment by one to four years, the contemporaneous GE treatment indicator may miss the policy's true timing. Lagging the GE-active window by one year (2016–2019) yields a minority share coefficient of 0.004 ($p = 0.08$) in the restricted sample; a two-year lag (2017–2020) yields 0.004 ($p = 0.07$). Both are smaller than the contemporaneous estimate and statistically insignificant at the 5 percent level, further supporting the null finding.

D. Heterogeneity Appendix

Black vs. Hispanic Decomposition. The divergent trajectories of Black and Hispanic completion shares at for-profits warrant further investigation. The Black share increase (2.8 pp during GE, 3.9 pp post-repeal) may partly reflect the continued expansion of for-profit institutions in metropolitan areas with large Black populations, particularly in healthcare certification programs (Cottom, 2017; Deming et al., 2012). The Hispanic share decline post-repeal (-1.5 pp) could reflect the simultaneous expansion of Hispanic-Serving Institutions in the public two-year sector, drawing Hispanic students away from for-profits (Baum and Holzer, 2017).

Geographic Heterogeneity. States with larger for-profit sectors (e.g., California, Florida, Arizona) showed similar patterns to the national estimates, with the Great Recession pre-trend dominating the full-sample results and the restricted-sample estimates showing small or null GE effects on minority shares.

E. Standardized Effect Sizes

Table 5: Standardized Effect Sizes for Main Outcomes

Outcome	$\hat{\beta}$	SE	SD(Y)	SDE	SE(SDE)	Classification
Minority Share	0.0070	0.0022	0.3024	0.0230	0.0072	Small positive
Log Minority Comp.	-0.9572	0.0338	2.3325	-0.4104	0.0145	Large negative
Log Total Comp.	-0.3935	0.0188	2.0966	-0.1877	0.0089	Large negative

Notes: **Country:** United States. **Research question:** Does the Gainful Employment Rule, which imposed debt-to-earnings tests on for-profit college programs threatening federal aid eligibility, alter the racial composition of sub-bachelor credential attainment at for-profit institutions relative to public two-year colleges? **Policy mechanism:** The GE Rule imposed program-level debt-to-earnings ratio thresholds; programs failing two of three annual assessments lost Title IV eligibility, potentially closing pathways disproportionately used by minority students. The Trump administration repealed the rule effective July 2019. **Outcome definition:** Minority share is Black non-Hispanic plus Hispanic completers divided by total completers in sub-bachelor awards (certificates and associate's degrees) from IPEDS completions survey; log completions are log(count +1). **Treatment:** Binary; institution is for-profit during the GE-active period (2015–2018). **Data:** IPEDS completions by race and award level, 2011–2023 (preferred sample dropping Great Recession years with pre-existing trends), institution-year panel, 4,256 for-profit and 1,180 public two-year institutions, 49,906 institution-year observations. **Method:** Difference-in-differences with institution and year fixed effects; standard errors clustered at the institution level. **Sample:** Degree-granting for-profit and public two-year institutions reporting sub-bachelor completions in IPEDS, restricted to institutions with at least 10 completions in any year; preferred specification drops 2008–2010 to address Great Recession pre-trends. SDE = $\hat{\beta}$/SD(Y) where SD(Y) is the unconditional standard deviation. Classification refers to magnitude, not statistical significance: Large (|SDE| > 0.15), Moderate (0.05–0.15), Small (0.005–0.05), Null (< 0.005).