The Impact of the ACUE Certification on Student Outcomes in the Texas A&M University System

Technical Report

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Executive Summary

This evaluation examines the impact of faculty certified in ACUE's Effective Teaching Practice Framework on student outcomes across eight campuses in the Texas A&M System: Central Texas, San Antonio, East Texas, Texarkana, Corpus Christi, Tarleton, College Station, and Kingsville. Using data from 3 academic years (fall 2021–spring 2022 as the baseline period, fall 2022–spring 2023 during certification, and fall 2023–spring 2024 after certification), this study compares course outcomes in sections taught by ACUE faculty to those taught by non-ACUE faculty. The evaluation focuses on key student outcomes, including completion rates, passing rates, DFW rates, and average course grades.

Methods

A Difference-in-Differences (DID) approach was used to compare outcomes over time between ACUE and non-ACUE course sections. Coarsened Exact Matching (CEM) ensured that ACUE and non-ACUE sections were matched based on key characteristics, such as course semester, department, level, and faculty tenure status, to ensure valid comparisons. The analysis controlled for faculty and student demographics, course characteristics, and other factors that might influence outcomes.

Key Findings

- **Improved DFW Rates:** Students in ACUE-taught course sections experienced a significantly larger reduction in DFW rates in the post-ACUE period than students in comparison sections, declining 12% from baseline. This difference translates to 145 fewer students receiving D or F grades or withdrawing compared to what would have been expected had faculty not become ACUE-certified.
- **Higher Average Grades:** Average grades increased significantly more in sections taught by ACUE-certified faculty than in comparison sections, rising from 2.69 at baseline to 2.86 in the year after certification, indicating a sustained improvement in student performance.
- **Positive Impacts for Specific Student Subgroups:** Male students displayed significantly larger grade improvements during the ACUE course period, while Black/African American students experienced larger gains in the post-ACUE period.

Conclusions

The findings emphasize the positive impact of faculty certified in the ACUE Framework on reducing DFW rates and improving average grades, with additional benefits for specific student groups. These results demonstrate the value of ACUE certification in fostering effective teaching practices and enhancing student success across varied instructional contexts in the Texas A&M University System.

About ACUE

The mission of the Association of College and University Educators (ACUE) is to ensure student success through quality instruction. ACUE delivers the highest-quality courses, pathways, and certifications with quick-to-implement practices that make a huge impact on student success. Instructors certified in ACUE's Effective Teaching Practice Framework are proven to boost persistence and completion for students, improve faculty confidence and engagement, and help institutions meet their strategic goals. ACUE offers online courses that are delivered through institutional partnerships or our e-catalog and are higher education's only provider of nationally recognized teaching certifications. To learn more, visit acue.org.

Introduction

In higher education, the quality of instruction plays a critical role in shaping student outcomes. Research consistently demonstrates that improvements in teaching effectiveness are linked to significant positive effects on student achievement (Braga et al., 2016; Brodaty & Gurgand, 2016; Carrell & West, 2010), with these effects often persisting across multiple semesters (De Vlieger et al., 2016). Consequently, professional development for faculty has emerged as a key strategy for enhancing instructional quality and fostering student success (Freeman et al., 2014).

ACUE provides professional development courses grounded in its Effective Practice Framework, which outlines the fundamental teaching skills and knowledge that educators should apply to improve student outcomes, regardless of their discipline (ACUE, 2016). These courses aim to strengthen faculty use of evidence-based instructional practices that positively impact student engagement, retention, and achievement. To evaluate the effectiveness of its programs, ACUE employs a rigorous accountability framework to evaluate the effectiveness of its programs in partnership with colleges and universities, consisting of six levels of evaluation: (1) faculty engagement, (2) faculty learning, (3) faculty implementation, (4) student engagement, (5) course-level student outcomes, and (6) institutional outcomes (MacCormack et al., 2018). The present evaluation focuses on level 5, specifically examining the impact of ACUE faculty on course-level student outcomes.

A growing body of research has demonstrated the positive impact of ACUE faculty on student success. Prior evaluations have consistently shown improvements in completion rates (Lawner & Snow, 2020; Lawner et al., 2019b), passing rates (Lawner & Snow, 2020; Pippins et al., 2021a), success rates (Hecht, 2019; Lawner & Snow, 2018), and average grades (Hecht, 2019; Lawner & Snow, 2019a, 2019b; Lawner et al., 2019a; Pippins et al., 2021a, 2021b, 2021c). These effects have been observed across diverse institutional contexts and student populations, further emphasizing ACUE certification's role in advancing academic success for all students.

This report evaluates the impact of certification in the Effective Teaching Practice Framework on student outcomes across eight campuses in the Texas A&M System: Central Texas, San Antonio, East Texas, Texarkana, Corpus Christi, Tarleton, College Station, and Kingsville. The Texas A&M University System is one of the largest higher education systems in the United States, comprising 11 universities and eight state agencies across Texas. Serving over 153,000 students, the system offers a wide array of undergraduate, graduate, and professional programs. Its flagship institution, Texas A&M University in College Station, was established in 1876 as the state's first public institution of higher learning. The system is renowned for its emphasis on research and service, significantly contributing to the state's economy (Texas A&M University, n.d.).

This evaluation employs a Difference-in-Differences (DID) approach to assess the impact of ACUE faculty on key student outcomes, including completion rates, passing rates, DFW rates, and average course grades. The analysis covers 3 academic years: fall 2021–spring 2022 (baseline, before the ACUE course), fall 2022–spring 2023 (during the ACUE course), and fall 2023–spring 2024 (post-ACUE course). To ensure valid comparisons, matched course sections taught by non-ACUE faculty were included, using a rigorous matching methodology to account for differences in instructional context, faculty experience, and course characteristics.

This report provides a better understanding of the effectiveness of ACUE certification in improving teaching practices and fostering student success, with a particular focus on how these impacts manifest over time and across diverse instructional settings at the Texas A&M System.

Methods

Participants and Procedures

A total of 238 faculty at the 11 campuses in the Texas A&M System participated in ACUE's comprehensive courses during the 2022–2023 academic year, becoming certified in the Effective Teaching Practice Framework by the end of spring 2023. Of the 11 campuses that participated in ACUE comprehensive courses during the 2022–2023 academic year, only eight are represented in the dataset, as they provided the data on time for analysis and had a sufficient number of course sections taught by ACUE instructors and comparison instructors to be included. From these eight campuses, 68 faculty met the necessary requirements to be included in the dataset: no prior exposure to other ACUE courses, completion of the ACUE certification, and the implementation of at least nine practices during the ACUE comprehensive course. To evaluate the impact of this cohort of ACUE faculty on their students' outcomes, datasets were provided separately by the offices of institutional research at each of the eight participating campuses. These datasets included course section data, instructor demographic and employment characteristics, student demographic characteristics, and student-level course outcome data (i.e., transcript data) for all course sections taught by the certified faculty and a set of a similar course sections taught by non-certified faculty.

The comparison course sections were selected based on the field and level of the section being taught, which later were matched to ACUE-taught course sections based on course semester, course department, course level, and the tenure status of the instructor, as explained below. This matching process was implemented to ensure that the matched course sections were as similar as possible in content, difficulty, and instructor experience to those taught by the ACUE-certified faculty, providing a robust comparison for the evaluation.

The analytic sample consisted of 118,357 non-unique student enrollments from 4,880 course sections taught by 712 instructors across 3 academic years. These academic years included fall 2021–spring 2022 (baseline period, 1 year before faculty enrolled in an ACUE comprehensive course), fall 2022–spring 2023 (during period, when faculty were being certified), and fall 2023–spring 2024 (post period, 1 year after ACUE faculty were certified). Within the sample, there were 23,516 non-unique student enrollments from 873 course sections taught by ACUE faculty and 94,841 non-unique student enrollments from 4,007 course sections taught by non-ACUE faculty. Table 1 provides a detailed comparison of the number of non-unique student enrollments and sections taught by ACUE faculty and non-ACUE faculty for each time frame.

Table 1

Number of Student Enrollments and Course Sections by Faculty Type and Time Frame at the Texas A&M System

	Faculty type			
	ACUE		**Non-ACUE**	
Time frame	Non-unique student enrollments	Course sections	Non-unique student enrollments	Course sections
Baseline	8,001	299	32,922	1,351
During ACUE	8,651	311	34,550	1,473
Post ACUE	6,864	263	27,369	1,183

In the baseline period, the average section size for ACUE faculty was 25.98 (*SD* = 22.88), while for non-ACUE faculty it was 24.17 (*SD* = 25.98). During the ACUE course period, the average section size for ACUE faculty was 26.95 (*SD* = 19.84), while for non-certified faculty it was 23.35 (*SD* = 21.11). In the post period, the average section size decreased to 24.69 (*SD* = 15.81) for ACUE faculty, while it decreased to 23.00 (*SD* = 15.15) for non-certified faculty. Statistical analysis revealed that these differences in average section size between ACUE faculty and non-ACUE faculty were only significant in the during period, $t(1799) = -2.80$, $p = .005$, and in the post period, $t(1466) = -1.66$, $p = .097$; in the baseline period, the difference was not significant, with $t(1668) = -1.28$, $p = .200$.

ACUE faculty are significantly more likely to hold tenure-track positions (54.4%) compared to non-ACUE faculty (36.3%; see Figure 1), $\chi^2(1, N = 712) = 8.52$, $p = .004$. The proportion of female instructors is significantly higher among ACUE faculty (60.3%) compared to non-ACUE faculty (47.4%; see Figure 2, $\chi^2(1, N = 710) = 4.12$, $p = .042$.

Figure 1

Faculty Proportions by Tenure Status in the Texas A&M System Analytic Sample

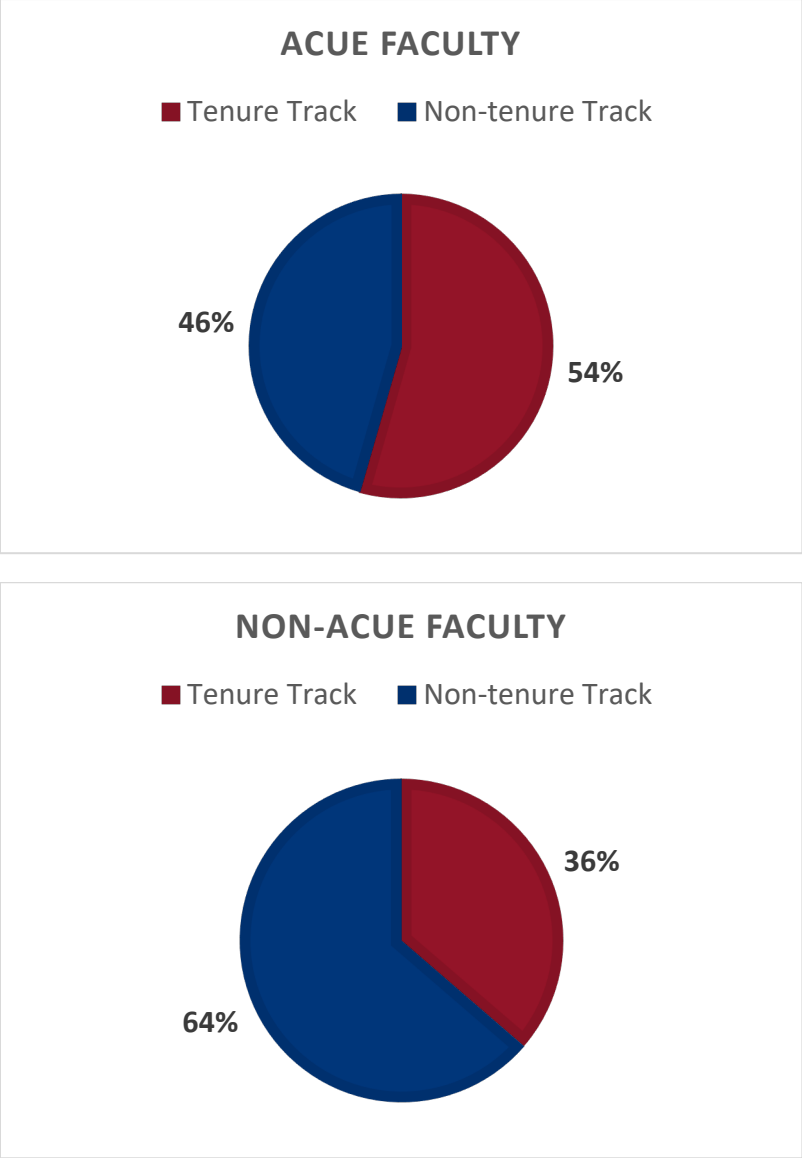
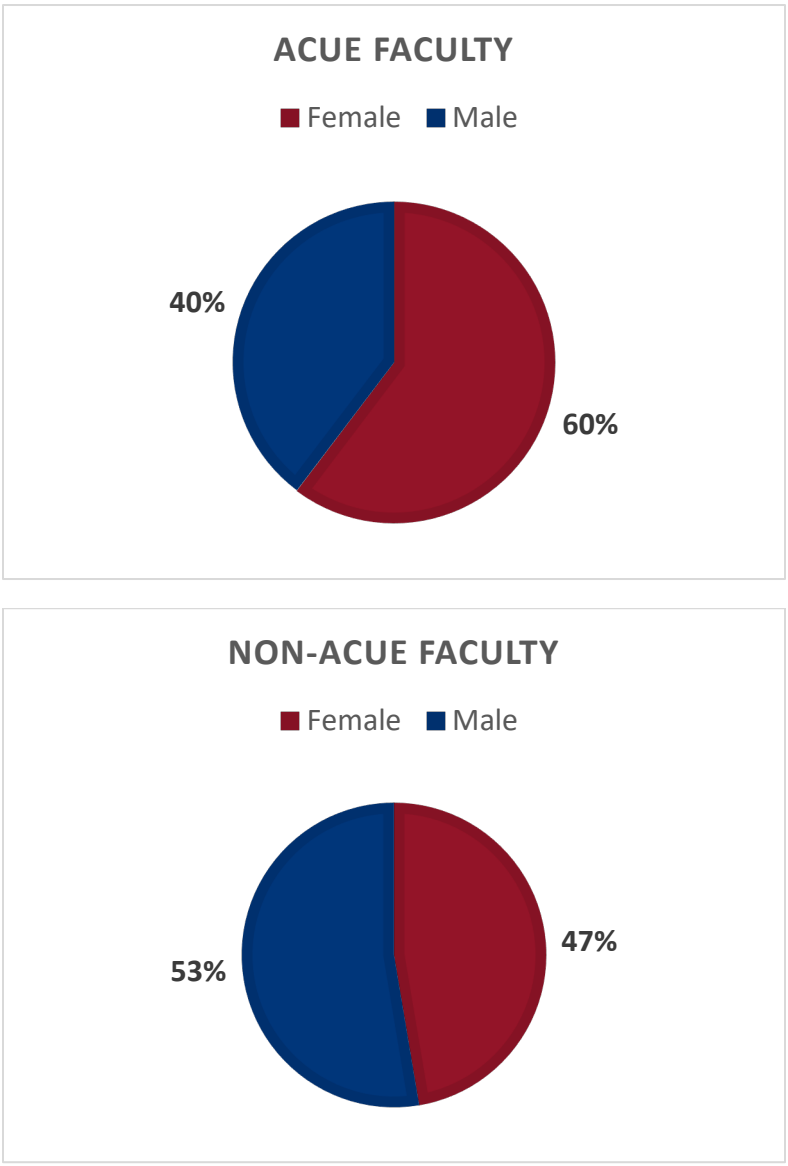


Figure 2

Faculty Proportions by Gender in the Texas A&M System Analytic Sample



As displayed in Table 2, the average age across all student enrollments in the sample was 21.68 years (*SD* = 5.64). White students comprised 50.0% of the total enrollments, followed by Hispanic/Latino students (34.7%), Black/African American students (6.8%), and students of other races/ethnicities (6.3%). A small proportion of the sample consisted of international students (1.5%). Most enrollments were female students (57.9%) and students enrolled in face-to-face courses (64.6%), while 21.8% were first-year students. Additionally, nearly half of the enrollments were first-generation college students (49.0%).

Table 2

Descriptive Statistics for Course Sections Taught by ACUE Faculty and Matched Sections (*N* = 118,357)

Variable	Mean	SD
Age	21.68	5.64
Female students (%)	.579	.494
Black/African American students (%)	.068	.251
White students (%)	.500	.500
Hispanic/Latino students (%)	.347	.476
Other students (%)	.063	.242
International students (%)	.015	.120
First-generation college students (%)	.490	.500
First-year students (%)	.218	.413
Instructional mode: Face-to-face (%)	.646	.478
Instructional mode: Hybrid (%)	.062	.241
Instructional mode: Online (%)	.292	.455

Matching Process

To ensure a valid comparison between course sections taught by ACUE faculty and those taught by non-ACUE faculty, Coarsened Exact Matching (CEM) was utilized. This matching method was designed to pair course sections taught by faculty from the ACUE group with course sections taught by non-ACUE faculty who taught under similar conditions. Course sections were matched based on four key criteria: course semester, course department, course level, and faculty tenure status. These criteria were selected to account for the instructional context, as differences in subject matter, course difficulty, and faculty seniority can significantly influence student outcomes. For example, an upper-division biology course section taught by a tenure-track faculty member in the ACUE group would only be matched with similar biology course sections of the same level taught by tenure-track faculty members in the comparison group. This ensured that any observed differences in student outcomes could be more confidently attributed to ACUE certification rather than to pre-existing variations in instructional context, course content, or faculty status. The matching process followed a one-to-many structure, where a single ACUE-taught course section was matched to multiple comparison course sections that met the matching criteria. This approach increased the number of observations in the comparison group, enhancing the statistical power of the analysis. To account for this structure, the variable Match Weighing was included as a control in the analyses, ensuring that the results were appropriately adjusted for the one-to-many matching and that the contribution of each matched comparison section was weighted correctly.

The use of CEM offers several advantages in this evaluation. By creating matched groups of ACUE and comparison course sections taught under similar instructional characteristics, this method reduces imbalance between groups and minimizes potential confounding effects. Furthermore, CEM enhances the robustness of the analysis by improving covariate balance, ensuring that the results reflect the impact of ACUE certification rather than other external factors.

Measures

Course completion, passing, and DFW were all coded as binary variables. The course completion variable was coded as 0 for all students who withdrew from a course after the add/drop period (i.e., received a W, WS, WX, or Q[1] as a final mark); otherwise, it was coded as 1, regardless of whether they received a passing or failing final grade in the course. However, some campuses in the dataset did not distinguish between withdrawal from a course and withdrawal from the institution, or at what stage the student withdrew from the course. In such cases, all withdrawals were retained in the dataset without the ability to make this distinction. The passing variable was coded as 1 for all students with marks A, B, C, D, CR, or S and coded as 0 for students who received F, NC, or U marks; analyses of passing excluded students who withdrew before receiving a final grade. The DFW variable was coded as 1 for students who received marks D, F, W, or Q; otherwise, it was coded as 0. For final course grades, outcomes were converted from

[1] On some campuses, the mark "Q" was defined in the same way as the mark "W" on other campuses. In these cases, "Q" was treated identically to "W" in the analysis.

an alphabetic scale to a 4-point numeric equivalent (A = 4.0, B = 3.0, C = 2.0, D = 1.0, F = 0). Students who withdrew from the course before receiving a final grade or who received a CR or S (i.e., credit or satisfactory) were not included in the course grade analyses estimating average grade points.

Analytic Approach

To evaluate the impact of ACUE faculty on student outcomes across the Texas A&M System, a Difference-in-Differences (DID) approach was used to analyze changes over time in key student outcomes, comparing sections taught by ACUE faculty to similar courses taught by non-ACUE faculty.

Binary outcomes (completion, passing, and DFW rates) were analyzed using binomial logistic regression, and average grades were analyzed using ordinary least square regression. To enhance interpretability, linear probability models were used to estimate the marginal effects of the parameters of interest. Control variables were included to account for differences in faculty characteristics (gender, age, race/ethnicity, instructional status, and tenure status), student demographics (gender, race/ethnicity, age, college generational status, Pell eligibility, class standing, international status, and student enrollment type), student headcount per course section, course format, campus, and match weighing. The racial/ethnic groups used in this analysis were Black, Hispanic, White, International, Other (where "Other" included all racial/ethnic groups representing less than 5% of the sample), and Unknown. Both the International and Unknown categories comprised less than 5% of the sample, making results for these subgroups less reliable and representative. To avoid misinterpretation, these results have been excluded from reporting.

Main effects were modeled for faculty type (coded as 1 for ACUE faculty and 0 for non-ACUE faculty) and time frame (baseline, during ACUE, and post ACUE). The primary parameters of interest were the two-way interactions between faculty type and time frame (ACUE × during and ACUE × post), which measured changes in student outcomes over time in sections taught by ACUE faculty relative to those taught by non-ACUE faculty. Additionally, three-way interactions were included to examine how these effects differed across student demographic groups, including race/ethnicity, gender, and college generational status.

Results

Completion Rates

The DID estimates for the impact of ACUE faculty on changes over time in student completion rates were not statistically significant in the during period, b = -0.04, SE = 0.09, 95% CI [-0.22, 0.14], p = .645, or the post period, b = -0.00, SE = 0.10, 95% CI [-0.19, 0.19], p = .985, relative to the comparison group.

Passing Rates

The DID estimates for the impact of ACUE faculty on changes over time in student passing rates were not statistically significant in the during period, b = 0.01, SE = 0.06, 95% CI [-0.11, 0.13], p = .850, or the post period, b = 0.04, SE = 0.06, 95% CI [-0.09, 0.16], p = .566, relative to the comparison group.

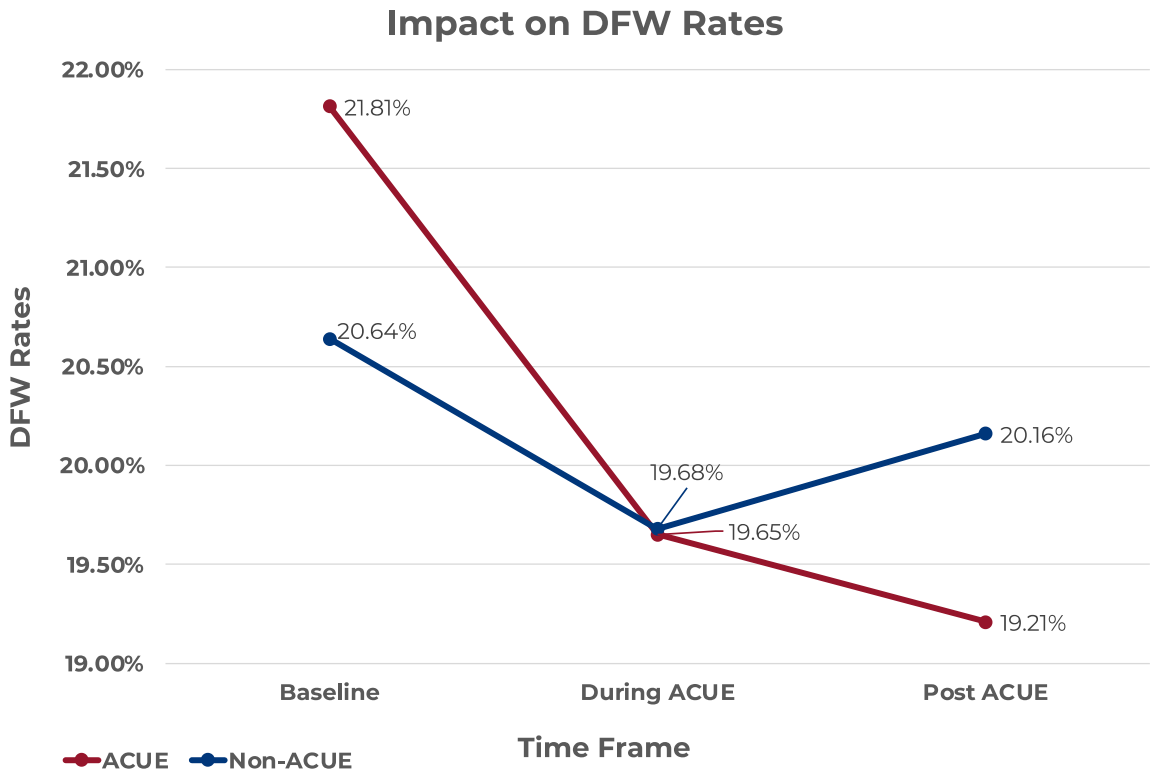
DFW Rates

The DID estimates for the impact of ACUE faculty on changes over time in student DFW rates were not statistically significant in the during period, b = -0.07, SE = 0.05, 95% CI [-0.17, 0.02], p = .107, but showed a statistically significant reduction in the post period, b = -0.14, SE = 0.05, 95% CI [-0.24, -0.05], p = .003, relative to the comparison group. Specifically, DFW rates of students taught by ACUE faculty decreased 12% from the baseline period to the post period, declining from 21.8% at baseline to 19.2% in the post period, while DFW rates in comparison sections went from 20.6% at baseline to 20.2% in the post period (see Figure 3).

In addition, post hoc analyses were conducted on the logistic regression model to examine the interaction between time frame and faculty type (ACUE vs. non-ACUE) and to assess specific group differences in DFW rates. The contrast analysis using Bonferroni correction revealed a statistically significant reduction in predicted DFW rates for students in the ACUE group from baseline to the post period (Δ = -0.18, p = .001). However, the non-ACUE group did not show a significant difference in DFW rates over the same period (Δ = -0.03, p = 1.000). There was no statistically significant difference between the ACUE and non-ACUE groups at baseline (Δ = 0.08, p = .312), indicating similar starting points. Although predicted DFW rates were lower in the ACUE group than in the non-ACUE group in the post period, this difference was not statistically significant (Δ = -0.07, p = 1.000).

Figure 3

Impact of ACUE Faculty on DFW Rates



Non-Significant Interactions With Student Demographics

Follow-up analyses revealed no significant interaction effects between faculty type, time point, and the student characteristics examined on DFW rates:

- **Student Gender:** The interaction for male students during the post-ACUE period was not significant, $b = 0.06$, $SE = 0.10$, 95% CI [-0.13, 0.25], $p = .540$, indicating no meaningful variation in DFW rates by gender.
- **Student Race/Ethnicity:** The interaction for Black/African American students in the post period was not significant, $b = -0.27$, $SE = 0.18$, 95% CI [-0.61, 0.08], $p = .137$. Similarly, the interactions for Hispanic/Latino students, $b = -0.01$, $SE = 0.11$, 95% CI [-0.22, 0.21], $p = .931$, and students of "other" racial/ethnic groups, $b = -0.20$, $SE = 0.21$, 95% CI [-0.61, 0.21], $p = .335$, were not significant, indicating no meaningful variation in DFW rates by race/ethnicity during this period.

- **College Generational Status:** The interaction for first-generation students in the post period was not significant, $b = 0.11$, $SE = 0.10$, 95% CI [-0.08, 0.30], $p = .259$, indicating no meaningful variation in DFW rates based on generational status during this period.

These findings suggest that ACUE certification's impact on DFW rates did not differ across these subgroups at TAMU.

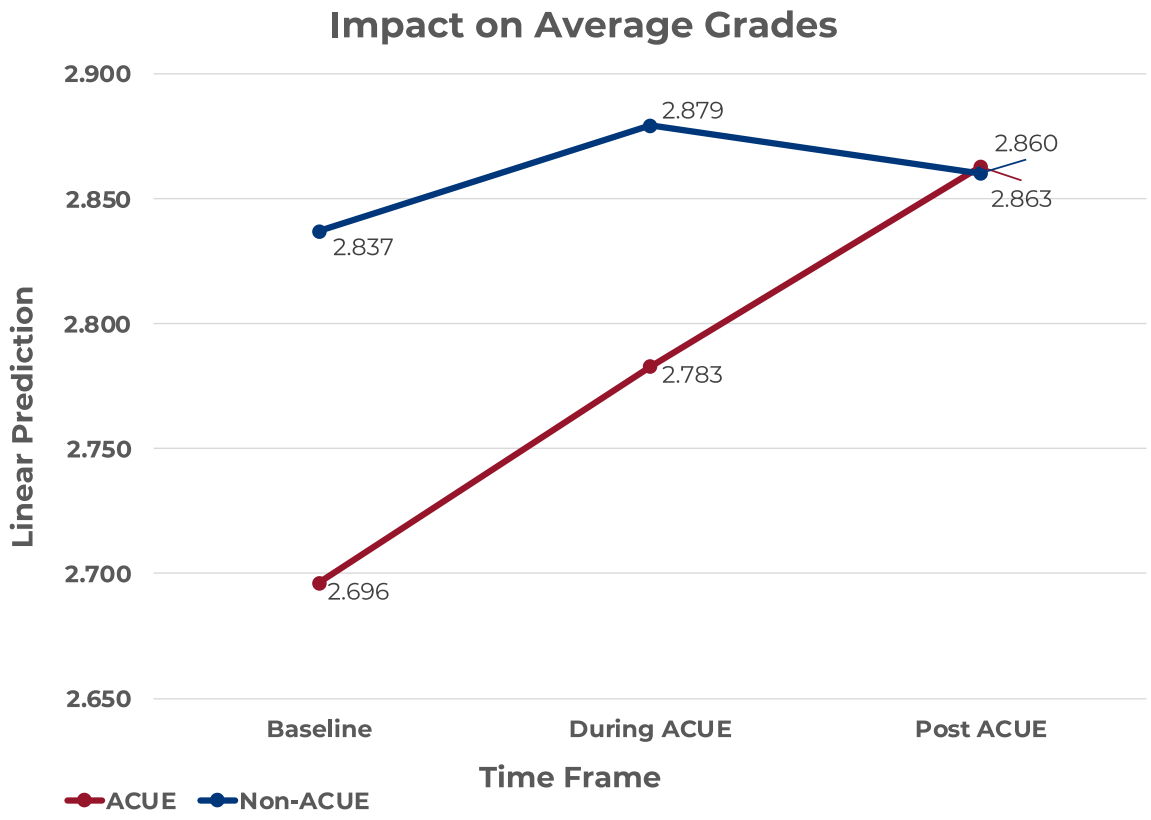
Average Course Grades

The DID estimates for the impact of ACUE faculty on changes over time in average course grades were statistically significant in both the during period, $b = 0.04$, $SE = 0.02$, 95% CI [0.00, 0.09], $p = .043$, and the post period, $b = 0.14$, $SE = 0.02$, 95% CI [0.10, 0.19], $p < .001$, relative to the comparison group, indicating larger improvements in average grades in course sections taught by ACUE faculty compared to students in the non-ACUE group during these two time frames. This translates to a predicted increase in average course grades of 0.09 points during the ACUE course and 0.17 points in the post period relative to baseline (Figure 4).

In addition, post hoc analyses were conducted on the linear regression model to examine the interaction between time frame and faculty type (ACUE vs. non-ACUE) and to assess specific group differences in final average grades. Among students taught by ACUE faculty, predicted average grades increased significantly from baseline to the during period ($\Delta = 0.09$, $p < .001$) and from baseline to the post period ($\Delta = 0.17$, $p < .001$). In contrast, students in the non-ACUE group showed a smaller statistically significant increase during the course period ($\Delta = 0.04$, $p < .001$), but with no significant change from baseline to the post period ($\Delta = 0.02$, $p = .525$). Additionally, the ACUE group showed significantly lower predicted average grades at baseline compared to the non-ACUE group ($\Delta = -0.14$, $p < .001$), but this pattern shifted, with the ACUE group having no significant difference in predicted grades compared to the non-ACUE group in the post period ($\Delta = 0.00$, $p = 1.000$).

Figure 4

Impact of ACUE Faculty on Average Grades

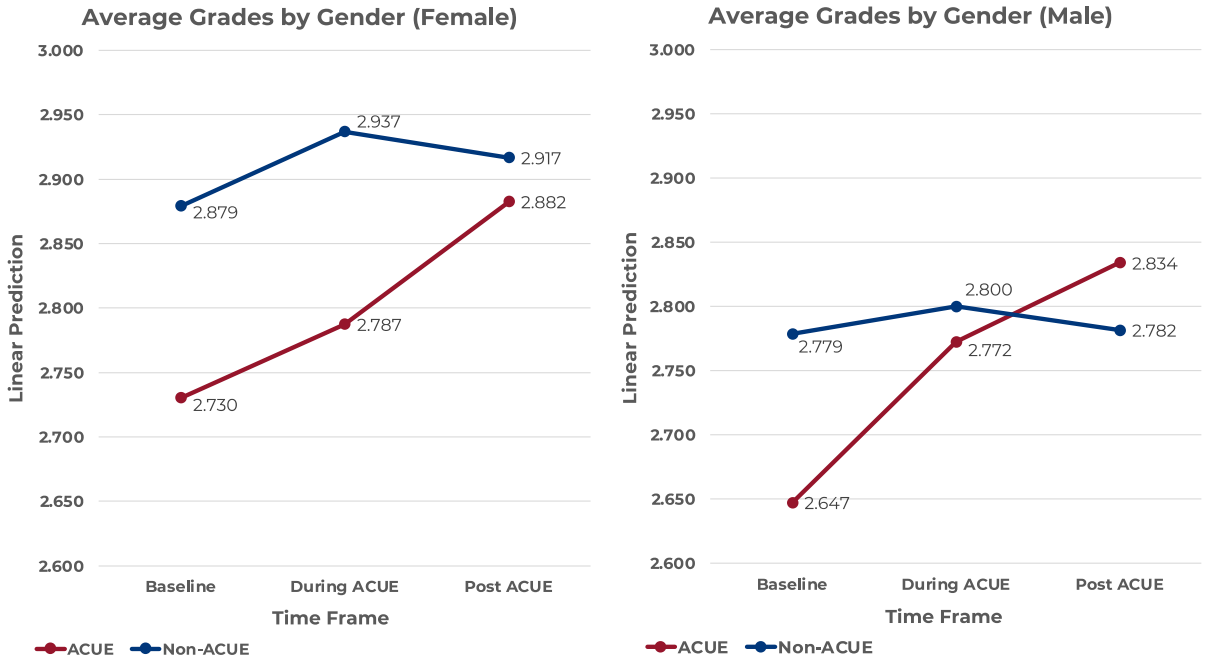


Interactions With Student Gender

Follow-up analysis adding interactions with student gender found a significant interaction between male students, faculty type, and the during period, $b = 0.10$, $SE = 0.04$, 95% CI [0.02, 0.19], $p = .018$, indicating a larger positive impact of ACUE faculty on average grades for male students compared to female students during the ACUE course period. The interaction for male students in the post period was not significant, $b = 0.07$, $SE = 0.05$, 95% CI [-0.02, 0.16], $p = .142$ (Figure 5).

Figure 5

Predictive Margins of Time Frame x ACUE x Student Gender



Interactions With Student Ethnicity/Race

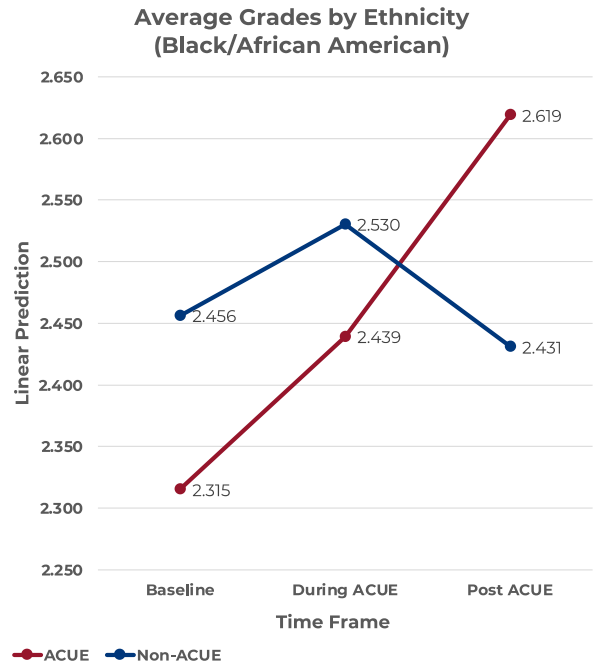
Follow-up analysis adding interactions with student ethnicity/race found a significant interaction between Black/African American students, faculty type, and the post period, b = 0.21, SE = 0.10, 95% CI [0.01, 0.41], p = .038, indicating a larger positive impact of ACUE faculty on average grades for this group. The interaction for Black/African American students during the ACUE course period was not significant, b = -0.04, SE = 0.10, 95% CI [-0.23, 0.16], p = .712.

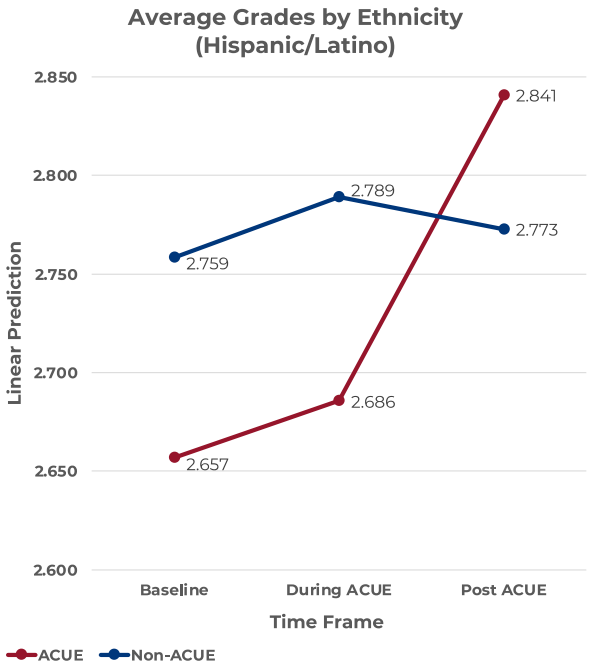
For Hispanic/Latino students, the interaction during the ACUE course period was marginally significant, b = -0.09, SE = 0.05, 95% CI [-0.19, 0.01], p = .076, and the interaction in the post period was not significant, b = 0.05, SE = 0.05, 95% CI [-0.05, 0.16], p = .321. Similarly, for students of "other" racial/ethnic groups, the interaction during the ACUE course period was marginally significant, b = -0.15, SE = 0.09, 95% CI [-0.32, 0.02], p = .094, and the interaction in the post period was not significant, b = -0.03, SE = 0.09, 95% CI [-0.21, 0.15], p = .769 (Figure 6).

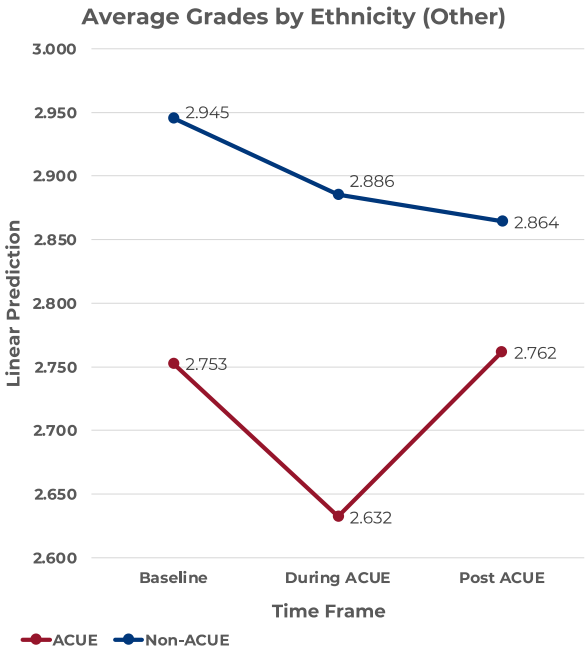
These results suggest that the impact of ACUE faculty on average grades was more positive for Black/African American students compared to White students in the post period.

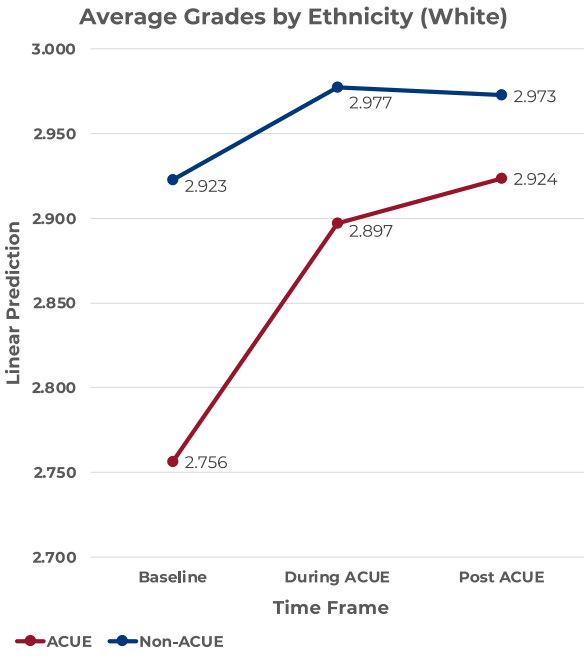
Figure 6

Predictive Margins of Time Frame x ACUE x Student Race/Ethnicity









Non-Significant Interactions With Student Demographics

Follow-up analyses revealed no significant interaction effects between faculty type, time point, and the student characteristics examined on average course grades:

- **College Generational Status:** The interaction for first-generation students during the ACUE course period was not significant, $b = 0.04$, $SE = 0.04$, 95% CI [-0.05, 0.12], $p = .370$, nor was it significant in the post period, $b = -0.01$, $SE = 0.05$, 95% CI [-0.10, 0.08], $p = .878$, indicating no meaningful variation in average course grades based on generational status during these periods.

Discussion

The present evaluation provides a comprehensive understanding of the impact of ACUE faculty on student outcomes across the eight participating campuses in the Texas A&M System. Using a Difference-in-Differences (DID) approach, this study assessed changes in completion rates, passing rates, DFW rates, and average course grades for students in sections taught by ACUE faculty, compared to students in matched sections taught by non-ACUE faculty.

Overall, the results revealed meaningful improvements in DFW rates and average course grades in course sections taught by ACUE faculty relative to comparison sections, particularly in the year following faculty certification. The evaluation showed a significant 12% reduction in DFW rates in the post period among students taught by ACUE-certified faculty, while no meaningful changes were observed in comparison sections over the same period. This reduction in DFW rates means that more students are passing their courses and staying on track toward graduation, which can help lower dropout risks, reduce delays in degree completion, and ultimately support stronger graduation rates and institutional outcomes.

In terms of academic performance, the evaluation found significantly larger gains in average course grades among students taught by ACUE-certified faculty in both the during-ACUE and post-ACUE periods relative to comparison sections. Specifically, while average grades among students taught by ACUE-certified faculty increased significantly during both time points, with a larger increase of 0.17 grade points in the post period, grades in comparison sections only improved in the during period and then returned to levels similar to baseline in the post period. Furthermore, although students taught by ACUE faculty started with lower average grades than their peers, this gap closed over time, and by the post period, their performance was comparable with that of students in non-ACUE sections. These improvements represent meaningful and sustained progress across the large body of students at the Texas A&M University System and suggest that students of ACUE faculty mastered course content more effectively, improving their academic standing and potentially positioning them for continued academic success.

The subgroup analyses provided further insights into how the ACUE certification impacts student achievement across subgroups. For example, male students experienced larger gains in average grades during the ACUE course period, and Black/African American students saw greater improvements in the post period. These findings highlight the potential of ACUE faculty to narrow achievement disparities and support the success of all students, as well as the importance of continued efforts to explore how faculty development programs like the ACUE courses impact a wide range of student populations.

While the findings indicate clear benefits of ACUE-certified faculty on DFW rates and average course grades, no significant effects were observed for completion or passing rates. The lack of significant results in these areas may reflect contextual factors such as institutional differences or variations in faculty implementation of ACUE practices. Additionally, the high baseline levels for completion rates (over 95%) may have limited the potential for further improvement, suggesting a possible ceiling effect for this outcome. Another consideration is that the nature of this evaluation may have limited its ability to capture other positive impacts on students, such as improved self-efficacy and growth mindset, which have been observed in prior evaluations of ACUE certification (Pippins et al., 2023). Future research should examine these and other potential benefits to provide a more comprehensive understanding of the ways in which ACUE certification supports student success.

These findings reinforce the growing body of evidence supporting the effectiveness of the ACUE certification in improving teaching practices and fostering student success. By reducing DFW rates and increasing average grades, ACUE faculty play a critical role in promoting student persistence and academic achievement across diverse institutional settings. The observed improvements in outcomes, including among specific subgroups, highlight the importance of continued investment in ACUE faculty development courses to support a broad range of student needs and foster academic success for all student groups across the Texas A&M University System.

Limitations

First, one limitation of this evaluation was the lack of consistent data on Pell eligibility across some campuses. Pell eligibility serves as an important proxy for socioeconomic status, which can significantly influence student outcomes. While the absence of this variable posed a potential challenge to controlling for financial need, additional analyses were conducted comparing the results with and without Pell eligibility as a control variable. These analyses revealed no substantial differences in the findings, which supported the decision to report results without including Pell eligibility. Nonetheless, having this variable available in future evaluations would provide a more comprehensive understanding of the relationship between socioeconomic status and student outcomes.

Second, differences in how the datasets classified withdrawals presented another limitation. In some cases, the datasets provided did not distinguish between course withdrawals and university withdrawals, or at what stage in the term the withdrawal occurred. All withdrawals (e.g., “W” or “Q”) were treated the same in the analysis, except in cases where it was clearly distinguished as a withdrawal from the institution, whereupon those cases were excluded. These inconsistencies in withdrawal data affected data uniformity and may have introduced variability in the calculation of DFW rates and course completion rates, potentially impacting the comparability of results across campuses.

Lastly, differences in sample sizes across campuses also presented a limitation in this evaluation. Some campuses had significantly smaller student populations and fewer course sections in both the ACUE and comparison groups, which may reduce the reliability of findings for these specific institutions. Smaller sample sizes are more susceptible to variability and may limit the generalizability of campus-specific results.

While the findings provide strong evidence of the positive impact of ACUE certification, it is important to consider these limitations when interpreting the results.

Conclusion

The findings from this evaluation highlight the positive impact of ACUE-certified faculty on student outcomes at the Texas A&M System. Significant reductions in DFW rates and improvements in average course grades were observed in course sections taught by ACUE-certified faculty, particularly in the year following their participation in the ACUE certification course. These results suggest that the implementation of evidence-based teaching practices, as emphasized in the ACUE Framework, contributes to enhanced academic experiences and performance for students. These findings reinforce the value of continued investment in professional development initiatives like the ACUE courses to strengthen teaching practices and promote positive student outcomes across a range of academic contexts.

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