Preserving Academic Talent: Higher Faculty Retention Among ACUE-Certified Faculty at The University of Southern Mississippi

Technical Report



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THE UNIVERSITY OF SOUTHERN MISSISSIPPI

ACUE

Executive Summary

This evaluation examines whether ACUE certification is associated with faculty retention at the University of Southern Mississippi (USM). Using institutional data from faculty who began ACUE certification between fall 2016 and fall 2020, the study compares retention outcomes among ACUE faculty to similar observations of faculty who did not participate in ACUE courses. The primary outcomes studied were faculty retention at 1, 2, 3, 4, and 5 years after initial ACUE enrollment. Exploratory analyses also examined faculty role and salary-tier mobility within 5 years.

Methods

Coarsened Exact Matching (CEM) was used to create a matched comparison group of non-ACUE faculty observations. Faculty were matched on baseline term, college group, faculty role, and years at USM. The final matched analytic sample included 110 ACUE faculty and 1,016 matched non-ACUE observations from 286 unique non-ACUE faculty. Logistic regression models estimated the association between ACUE certification and faculty retention using CEM weights; clustered standard errors by Instructor ID; and controls for demographic, employment, and academic context characteristics. Linear probability models were also estimated as sensitivity checks.

Key Findings

- **Higher retention through year 3:** ACUE certification was associated with significantly higher model-adjusted retention estimates at 1, 2, and 3 years after enrollment.
- **Practical retention gains:** ACUE certification was associated with approximately three additional faculty retained per 100 ACUE faculty after 1 year, eight additional faculty retained per 100 ACUE faculty after 2 years, and nine additional faculty retained per 100 ACUE faculty after 3 years.
- **Largest effect at year 3:** Predicted 3-year retention was 91.8% for ACUE faculty, compared with 82.9% for matched non-ACUE faculty observations, an 8.9-percentage-point difference, $p = .019$.
- **Potential ROI:** Applying the 3-year retention difference to four standard-size cohorts suggests approximately 11 additional faculty retained over 3 years, corresponding to over $1 million in avoided turnover costs and an estimated ROI of 261%.

Conclusions

The findings suggest that ACUE certification was associated with higher faculty retention at USM across all 5 years studied, with statistically significant differences observed during the first 3 years after enrollment. These results extend ACUE's evidence base from student- and course-level outcomes to faculty and institutional outcomes. Exploratory analyses further suggest that ACUE faculty were more likely to experience upward role and salary-tier mobility within 5 years, though these findings should be treated as secondary to the primary retention results. Overall, the study suggests that ACUE's evidence-based faculty development may provide institutional value beyond improvements in teaching and student outcomes by supporting faculty continuity and long-term institutional stability and effectiveness.

About ACUE

The Association of College and University Educators (ACUE) is dedicated to student success through high-quality instruction. In partnership with higher education institutions, we offer the only nationally recognized Effective Teaching certification, endorsed by the American Council on Education (ACE), supported by a vibrant online community of practice focused on advancing teaching excellence.

ACUE-certified faculty deliver exceptional teaching in every class, resulting in higher student engagement, improved achievement, and stronger retention—outcomes that enhance institutional impact and support long-term student success. Learn more at acue.org.

Introduction

Higher education institutions strive to keep a stable, engaged, and effective academic workforce, making faculty retention an important concern, especially since faculty turnover can disrupt institutional continuity and increases institutional expenses due to the costs of recruiting, onboarding, and training new employees, a pattern that has been well documented broadly across education settings (Santiago et al., 2022).

Faculty turnover has operational and financial consequences; faculty retention has implications for student success, with faculty having a central role in influencing students' academic experiences, engagement, and learning outcomes (Brodaty & Gurgand, 2016; De Vlieger et al., 2017). Furthermore, faculty retention is particularly relevant because it affects several dimensions of institutional success. For students and academic programs specifically, retaining faculty helps preserve instructional capacity, faculty–student relationships, continuity in the curriculum, and the quality of the teaching and learning process (Dee, 2004; Fried, 2023; Khan et al., 2021). In the case of departments, faculty stability supports course planning, program operations, and the completion of institutional projects while reducing disruption to academic work (Dee, 2004).

From an institutional perspective, retaining experienced faculty also helps preserve institutional knowledge and educational capacity while reducing both visible and hidden costs associated with turnover, including recruitment and replacement expenses, productivity losses, organizational demotivation, and potential effects on the institution's reputation and performance (Deco, 2025; Khan et al., 2021). In this sense, faculty retention is not only a workforce outcome but also an important indicator of institutional stability, effectiveness, and instructional quality.

Comprehensive faculty development has been recognized as an institutional strategy supporting faculty growth, instructional quality, and institutional effectiveness by providing faculty with structured opportunities to support their teaching, engage with colleagues, reflect on their instructional practices, and develop skills that support student learning (Park & Xu, 2024; Wheeler & Bach, 2021). Because faculty retention is partly shaped by gender, career stage, field, and institutional context, institutional support that improves faculty effectiveness and professional growth may be particularly important for strengthening faculty connection to the institution and continuity (Spoon et al., 2023). In addition to its impact on teaching and learning, faculty development may also contribute to faculty retention by supporting professional growth, mentorship, career satisfaction, and connection to the institution. This may be especially important for new faculty; a lack of support, guidance, and knowledge of institutional systems can contribute to burnout and early resignation, whereas mentoring, feedback, and collaboration within academic communities can instead help faculty build confidence and navigate institutional expectations (Dunham-Taylor et al., 2008). Similarly, prior research has also found that participating in faculty development can be associated with higher retention, with a study of junior faculty finding that those who participated in a faculty development program were 67% more likely to remain at the institution at the end of their probationary period than those who did not participate, after adjusting for hire date, gender, and ethnicity (Ries et al., 2009). These findings suggest that faculty development initiatives may contribute not only to teaching improvement but also to long-term faculty stability.

ACUE supports teaching improvement by providing evidence-based faculty development designed to equip faculty with effective instructional practices that support student engagement, learning, and success. To evaluate the effectiveness of its programs in partnership with higher education institutions, ACUE utilizes a rigorous accountability approach 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).

An expanding body of evidence has documented the positive impact of ACUE-certified faculty on student academic outcomes. Previous ACUE evaluations have found that students taught by ACUE faculty experience higher course completion rates, higher passing rates, lower DFW rates, improved average course grades across a variety of institutional contexts, and improved first-to-second-year retention (Lawner & Snow, 2019, 2020; Lawner et al., 2019; Pippins, Chasteen, et al., 2021; Pippins, Hartigan, et al., 2021; Pippins, Lawner, & Snow, 2021, 2022; Pippins et al., 2023).

These findings provide evidence that the improvements on instruction reached through ACUE's faculty development model can support concrete improvements in student experience and outcomes. They also provide an important foundation for examining whether institutions retain the faculty in whom they have invested through ACUE certification. However, less is known about whether this investment in faculty development is associated with these longer-term faculty outcomes such as retention. Understanding this relationship is important because many institutions invest in faculty development not only as a means to improve instruction but also as an investment of institutional resources that may support faculty engagement, continuity, institutional stability, and the sustained value of improved teaching.

The University of Southern Mississippi (USM) is a public research university founded in 1910, with campuses in Hattiesburg and Long Beach, additional teaching and research sites across the Mississippi Gulf Coast, and online programs. USM serves more than 13,000 students and is classified as a Carnegie R1 research institution, reflecting its role as a major public research university in the region (The University of Southern Mississippi, 2023). Given USM's investment in ACUE certification and prior evidence that ACUE faculty have supported stronger student outcomes at USM, faculty continuity is especially important for sustaining instructional quality, supporting student success, contributing to academic program stability, and the university's research mission.

USM has partnered with ACUE since fall 2016, offering faculty the opportunity to complete ACUE's evidence-based teaching practice courses. This partnership represents a sustained investment of institutional resources and faculty time intended to improve teaching and support student success. Prior ACUE research at USM has examined student outcomes associated with ACUE faculty, finding improved grades, passing rates, and DFW rates in gateway courses taught by ACUE faculty (Pippins, Chasteen, et al. et al., 2021), as well as finding that first-year students who took at least one course with an ACUE faculty member had a 4-percentage-point higher retention rate than students who did not take courses with ACUE faculty, corresponding to an estimated 861% return on investment (Pippins et al., 2022). The present study builds on this prior work by shifting the focus from student retention to faculty retention, examining whether ACUE participation is also associated with institutional stability through faculty continuity and whether USM retained the faculty in whom it had invested through ACUE certification.

USM's multi-year implementation of ACUE courses provides a valuable window for this analysis. This study focuses on ACUE-certified faculty who enrolled in their first ACUE course between fall 2016 and fall 2020 and compares whether faculty who enrolled in ACUE within this period were more likely to remain employed at USM than comparable faculty who did not participate in ACUE. Specifically, the study examines faculty retention at 1, 2, 3, 4, and 5 years after participating faculty enrolled in ACUE, which was selected as the baseline period for analysis.

Using Coarsened Exact Matching (CEM), ACUE faculty were matched to comparable eligible non-ACUE faculty based on baseline term, college group, faculty role, and years at USM. Logistic regression models were then used to estimate the association between ACUE enrollment and faculty retention, controlling for faculty demographic and employment characteristics, and academic context. These analyses provide a better understanding of whether ACUE certification is associated not only with student success, as observed in prior evaluations, but also with the retention of faculty who deliver improved student outcomes.

Methods

Sample and Faculty Characteristics

The data used for this study were provided by USM Institutional Research and included instructor characteristics, instructor employment and role information at the semester-level, and course-level teaching data. The study focused on ACUE-certified faculty who enrolled in their first ACUE course between fall 2016 and fall 2020 and a pool of potential non-ACUE comparison faculty who were eligible to serve as comparisons during the same period. Because the purpose of this study was to examine faculty retention after ACUE enrollment, each instructor's data was anchored to a specific starting point, referred to as their analysis reference term, from which we measured whether they stayed at the institution.

For ACUE faculty, the reference term was defined as the semester of first active ACUE enrollment. For non-ACUE faculty, the reference term was each eligible semester in which the faculty member appeared as a potential comparison case. This meant that a non-ACUE faculty member could appear more than once in the comparison pool if their role, career stage at USM, or college affiliation changed over time. In a small number of cases where an ACUE faculty member had no teaching record during their ACUE enrollment semester, we used the closest subsequent teaching semester as the analysis reference term.

The analytic dataset included regular fall and spring semesters beginning in fall 2016. Summer-only records, semester-contract records, and no-contract records were not included because they did not align with the regular academic-year structure used to assess faculty retention. Faculty were also required to have at least two semesters of data to be included in the analytic sample, ensuring that included faculty had sufficient institutional records to meaningfully track their employment over time.

Several groups were excluded because they were not appropriate for the faculty retention comparison of interest. Specifically, graduate/student employees, temporary and visiting faculty, postdoctoral researchers, and staff or administrative roles were excluded. In addition, separation reasons that did not reflect the type of voluntary or institutionally relevant faculty retention outcome examined in this study were excluded from the analytic sample.

These cases included death, retirement, end of student employment, end of temporary employment, end of visiting or postdoctoral position, and completion of grant-funded employment. End of contract was retained as a potential non-retention outcome.

Before matching, the eligible analytic sample included 118 ACUE faculty and 2,625 non-ACUE faculty-reference-term observations. Because the same non-ACUE faculty could appear as potential matches in more than one reference term, these comparison cases are referred to as faculty-reference-term observations rather than unique faculty members.

After matching, the analytic sample included 110 ACUE faculty and 1,016 matched observations from 286 unique non-ACUE faculty, for a total of 1,126 total cases. Among ACUE faculty, roughly one-third were tenure-track, one-third were tenured, and one-third were in teaching-track or instructional roles, with a small number in faculty leadership positions at baseline. The matched non-ACUE group had a notably higher share of tenured faculty (67.72%) and a smaller share in teaching-track roles (9.94%) (see Figure 1). The distribution of faculty role categories differed significantly between ACUE and non-ACUE faculty, $\chi^2(3) = 78.18$, $p < .001$.

Faculty were also categorized according to USM's college structure. Most faculty in both groups were affiliated with the College of Arts and Sciences, with 64.55% of ACUE faculty and 83.37% of matched non-ACUE observations in this group. The remaining faculty were distributed across the College of Education and Human Sciences, the College of Business and Economic Development, and the College of Nursing and Health Professions (see Figure 2). The distribution of college affiliation differed significantly between groups, $\chi^2(3) = 55.08$, $p < .001$.

Figure 1
Faculty Role

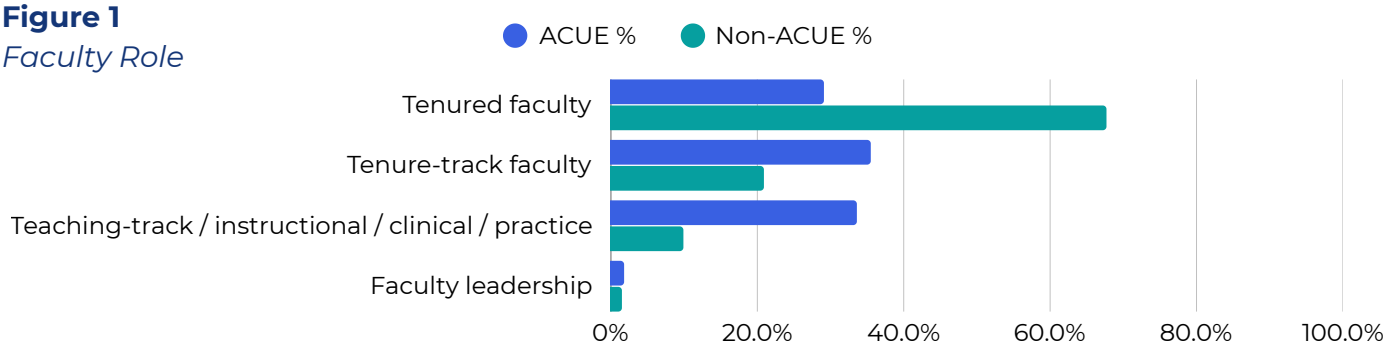
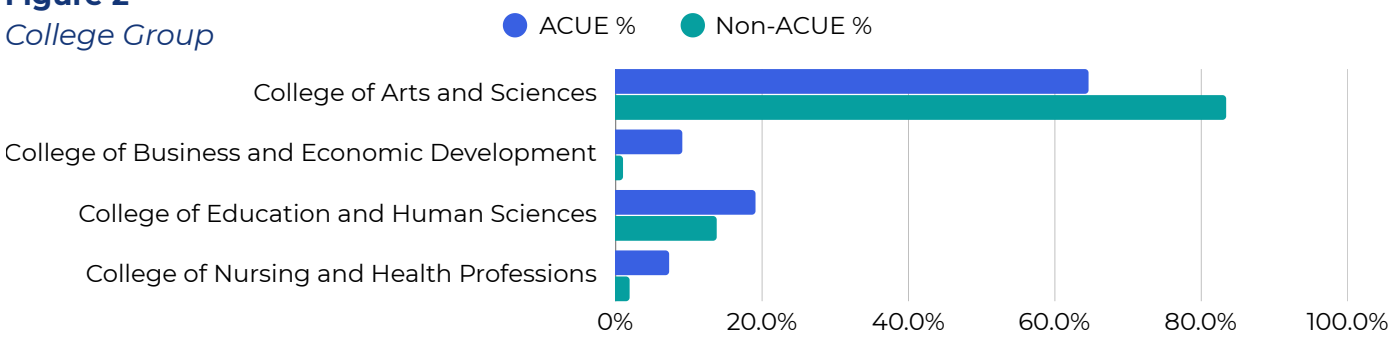


Figure 2
College Group



Note: Percentage labels reflect the distribution within each ACUE-status group.

In terms of experience during the reference semester, ACUE faculty had been at USM for an average of 6.54 years (SD = 6.19), compared with 9.35 years (SD = 6.13) among matched non-ACUE comparison observations. In the reference semester, ACUE faculty taught an average of 4.93 courses (SD = 3.41), while matched non-ACUE comparison observations taught an average of 5.55 courses (SD = 3.13). ACUE faculty also taught a higher proportion of online or hybrid courses (22.5% vs. 12.6%) than the matched non-ACUE comparison observations during the reference semester (see Table 1). In unweighted t-tests, the differences were statistically significant for years at USM, $t(1124) = 4.57$, $p < .001$, and proportion of online/hybrid courses, $t(1124) = -3.89$, $p < .001$. The difference in total courses taught was marginally significant, $t(1124) = 1.96$, $p = .051$. However, when CEM weights and clustered standard errors were applied, these differences were no longer statistically significant.

Table 1

Descriptive Statistics for Continuous Faculty Characteristics in the Analytic Sample

Variable	Non-ACUE (N = 1,016)		ACUE (N = 110)		Overall (N = 1,126)	
	Mean	***SD***	**Mean**	***SD***	**Mean**	***SD***
Years at USM	9.348	6.131	6.536	6.186	9.074	6.191
Total courses taught	5.547	3.126	4.927	3.407	5.487	3.159
Proportion online/hybrid courses	0.126	0.246	0.225	0.312	0.136	0.255

Both groups were predominantly White (over 80%), with smaller representations of Asian, Black, and other faculty (see Figure 3). The racial/ethnic distribution did not differ significantly between groups, $\chi^2(3) = 0.52$, $p = .914$. ACUE faculty were more likely to be female: 62.73%, compared to 38.58% in the matched non-ACUE group (see Figure 4). This difference was statistically significant, $\chi^2(1) = 23.93$, $p < .001$.

The majority of faculty in both groups fell into the low salary tier, with 82.73% of ACUE faculty and 75.89% of non-ACUE comparison observations being at this level (see Figure 5). Salary tiers were defined by USM Institutional Research rather than analyzed as exact salary values in order to protect sensitive compensation information. The distribution of salary tier did not differ significantly between groups, $\chi^2(2) = 4.05$, $p = .132$.

Figure 3
Race and Ethnicity

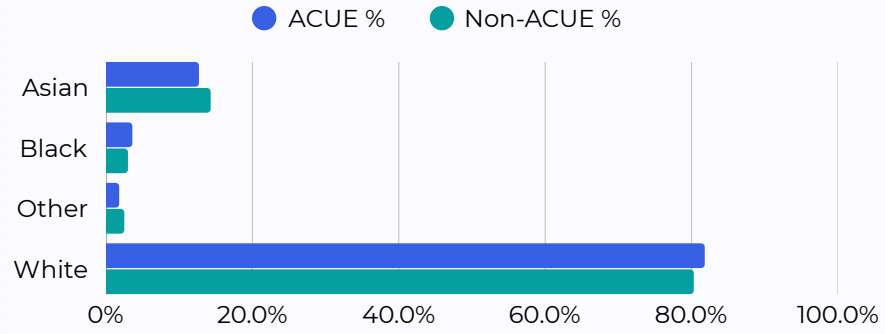


Figure 4
Gender

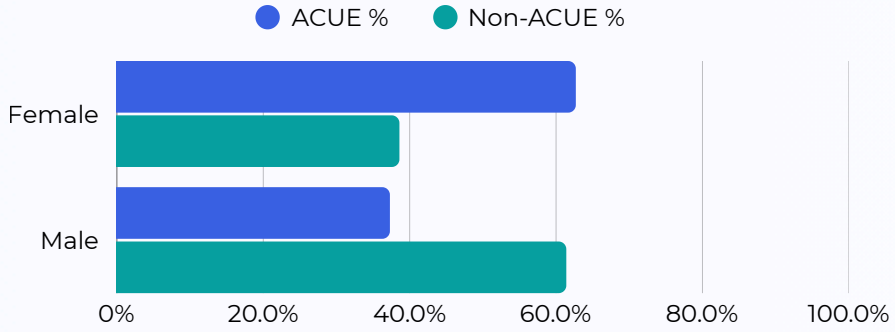
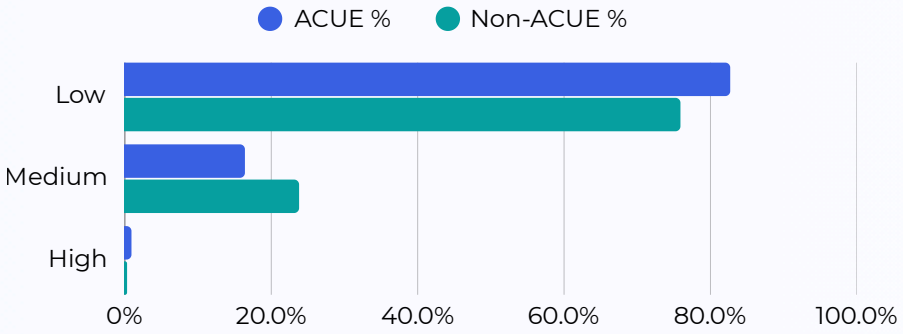


Figure 5
Salary Tier



Note: Percentage labels reflect the distribution within each ACUE-status group.

Matching Process

To ensure that the ACUE group and non-ACUE group were comparable, Coarsened Exact Matching (CEM) was used (Iacus et al., 2008, 2012). This was done to improve the balance between treatment and comparison groups by matching cases on key characteristics while preserving as much of the ACUE group as possible. In this study, CEM was used to match ACUE faculty with non-ACUE faculty-reference-term observations that were similar in terms of timing, institutional context, role type, and institutional experience.

Faculty were matched on four variables: the semester used as their starting point (analysis reference term), USM college group, faculty role category, and years at USM. The analysis reference term ensured that ACUE and non-ACUE faculty were compared within the same time period. USM college group was used to account for broader institutional context as faculty retention may be shaped by the college or school in which an instructor works. The four college groups were College of Arts and Sciences, College of Business and Economic Development, College of Education and Human Sciences, and College of Nursing and Health Professions. Faculty role category was included to account for differences in appointment type and role expectations. The initial role categories included tenured faculty, tenure-track faculty, teaching-track/instructional faculty, clinical/practice faculty, adjunct/part-time faculty, and faculty leadership; however, the final matched analytic sample included only tenured faculty, tenure-track faculty, teaching-track/instructional faculty, and faculty leadership. Years at USM was included as a matching variable because faculty at different career stages may have different baseline tendencies to stay or leave the institution. For matching purposes, the years at USM variable was grouped into four ranges: 0–2, 3–10, 11–20, and 21 or more years.

The matching process followed a many-to-many structure, meaning each ACUE faculty member was matched to every non-ACUE faculty observation that shared the same profile across these four characteristics. Because non-ACUE faculty could appear in more than one reference term, the same instructor could contribute multiple observations to the comparison group if they were eligible across different semesters. This structure was retained because it avoided arbitrarily selecting a single reference term for comparison faculty and preserved a larger and more appropriate pool of potential matches.

CEM successfully matched 110 of the 118 eligible ACUE faculty, retaining 93.22% of the ACUE sample. The matched comparison group included 1,016 non-ACUE faculty-reference-term observations, with a total matched sample of 1,126 observations. The matching achieved exact balance on all four matching variables. CEM weights were then applied in the analysis to properly account for the matched structure and how observations were distributed across matched groups.

Measures

The primary outcomes examined were whether faculty were still employed at USM at five points in time after their reference semester, including 1-year retention, 2-year retention, 3-year retention, 4-year retention, and 5-year retention. Retention was coded as a binary variable at each follow-up point. Faculty were coded as retained if they remained employed at USM at the relevant follow-up date. Faculty were also coded as retained if they had no employment end date in the dataset, meaning they remained employed through the end of the available data. Faculty were considered not retained if their employment ended before that follow-up date. For ACUE faculty, the follow-up periods were measured from the ACUE enrollment reference term. For the non-ACUE observations, the follow-up periods were measured from the comparison reference term. For example, 1-year retention indicated whether the faculty member was still employed at USM at the start of the term 1 year after the reference term. The same logic was applied to create 2-, 3-, 4-, and 5-year retention outcomes.

Several faculty characteristics were included as controls. Race and ethnicity were grouped into four categories: Asian, Black, White, and Other. Groups that made up less than 5% of the sample were combined into the Other category to avoid having too few cases in any one group and improve model stability. Gender was coded as female or male, and salary was grouped into low, medium, and high tiers. Years at USM was included as a continuous variable. Academic year was also included to account for when faculty entered the study, broader trends over time, and disruptions associated with the COVID-19 pandemic. Teaching load was measured as the total number of courses taught in the reference semester, and instructional modality was captured as the share of those courses that were taught online or in a hybrid format at the reference semester as well.

Analytic Approach

The primary analyses examined whether ACUE enrollment was associated with higher faculty retention at each follow-up point. Because each retention outcome was binary, binomial logistic regression models were used for the main analyses, with separate but identical models estimating 1-year, 2-year, 3-year, 4-year, and 5-year retention.

In each model, the primary predictor was ACUE enrollment, coded as 1 for ACUE faculty and 0 for matched non-ACUE faculty-reference-term observations. Models included CEM weights to account for the matched sample structure and standard errors were clustered by Instructor ID to account for the fact that some non-ACUE instructors appeared as comparison cases in more than one reference term.

As mentioned previously, all models included controls for race/ethnicity, gender, salary tier, years at USM, academic year, total courses taught in the reference semester, and proportion of online/hybrid courses taught in the reference semester. These controls were included to account for demographic, institutional, compensation-related, timing, workload, and teaching-modality differences that could be associated with faculty retention.

To improve interpretability, average marginal effects (AMEs) were estimated after each logistic regression model. Because logistic regression coefficients are expressed in log-odds, the interpretation of the results focused on AMEs and model-adjusted predicted probabilities, which translate the findings into percentage-point differences in retention. For transparency, the results report both logit coefficients and AMEs, but statistical significance is interpreted based on the AME estimates. Linear probability models (LPM) were also estimated as sensitivity checks using the same matched sample, CEM weights, controls, and clustered standard errors. These models were used to assess whether the main findings were sustained under a different modeling approach.

Additionally, exploratory analyses were conducted to examine whether ACUE enrollment was associated with faculty career mobility within 5 years of the analysis reference term. These analyses used upward and downward movement in faculty role and salary tier as exploratory outcomes. Faculty role mobility was coded based on whether an instructor moved to a higher or lower faculty role category relative to their reference-term role. For this exploratory measure, faculty roles were treated as an ordered hierarchy from lowest to highest: adjunct/part-time faculty, teaching-track or instructional/clinical or practice faculty, tenure-track faculty, tenured faculty, and faculty leadership. Movement to a higher-ranked category was coded as upward role mobility, while movement to a lower-ranked category was coded as downward role mobility.

Similarly, salary-tier mobility was coded based on whether an instructor moved to a higher or lower salary tier relative to their reference-term salary tier. These outcomes were analyzed using logistic regression models with the same matched analytic sample, CEM weights, clustered standard errors, and control variables used in the main retention analyses. Because changes in faculty role and salary tier may reflect post-treatment processes and may be influenced by promotions, position reclassification, or compensation adjustments outside of the scope of this study, these analyses were treated as exploratory and interpreted separately from the main retention findings.

Results

Primary Retention Results

Logistic regression models were used to estimate whether ACUE certification was associated with faculty retention at 1, 2, 3, 4, and 5 years after the analysis reference term (term of enrollment). Across all five follow-up periods, ACUE certification was associated with higher predicted retention compared to matched non-ACUE faculty-reference-term observations. The estimated ACUE advantage was statistically significant for 1-year, 2-year, and 3-year retention, marginally significant for 4-year retention, and trending positive but not statistically significant for 5-year retention.

One-Year Retention

For 1-year retention, the ACUE logit coefficient was positive but not statistically significant, b = 1.593, SE = 1.052, 95% CI [-0.469, 3.654], p = .130. However, the average marginal effect indicated that ACUE faculty had a significantly higher predicted probability of being retained after 1 year of ACUE enrollment. Specifically, ACUE certification was associated with a 3.08-percentage-point increase in predicted 1-year retention, AME = 0.031, SE = 0.014, 95% CI [0.004, 0.058], p = .023. The predicted probability of 1-year retention was 99.13% for ACUE faculty and 96.05% for matched non-ACUE observations. In practical terms, this difference corresponds to approximately three additional faculty retained per 100 ACUE faculty and a 3.2% higher predicted retention rate relative to matched non-ACUE faculty.

Two-Year Retention

For 2-year retention after ACUE enrollment, the ACUE logit coefficient was positive and statistically significant, b = 1.227, SE = 0.602, 95% CI [0.047, 2.407], p = .042. The average marginal effect showed that ACUE certification was associated with a 7.64-percentage-point increase in predicted 2-year retention, AME = 0.076, SE = 0.029, 95% CI [0.020, 0.133], p = .008. The predicted probability of 2-year retention was 95.77% for ACUE faculty and 88.14% for matched non-ACUE observations. This difference translates to approximately eight additional faculty retained per 100 ACUE faculty and an 8.7% higher predicted retention rate relative to matched non-ACUE faculty.

Three-Year Retention

For 3-year retention, the ACUE logit coefficient was positive and statistically significant, *b* = 0.939, *SE* = 0.474, 95% CI [0.010, 1.869], *p* = .048. The average marginal effect indicated that ACUE certification was associated with an 8.86-percentage-point increase in predicted 3-year retention after enrollment, AME = 0.089, *SE* = 0.038, 95% CI [0.015, 0.163], *p* = .019. The predicted probability of 3-year retention was 91.77% for ACUE faculty and 82.90% for matched non-ACUE observations. This difference corresponds to approximately nine additional faculty retained per 100 ACUE faculty and a 10.7% higher predicted retention rate relative to matched non-ACUE faculty.

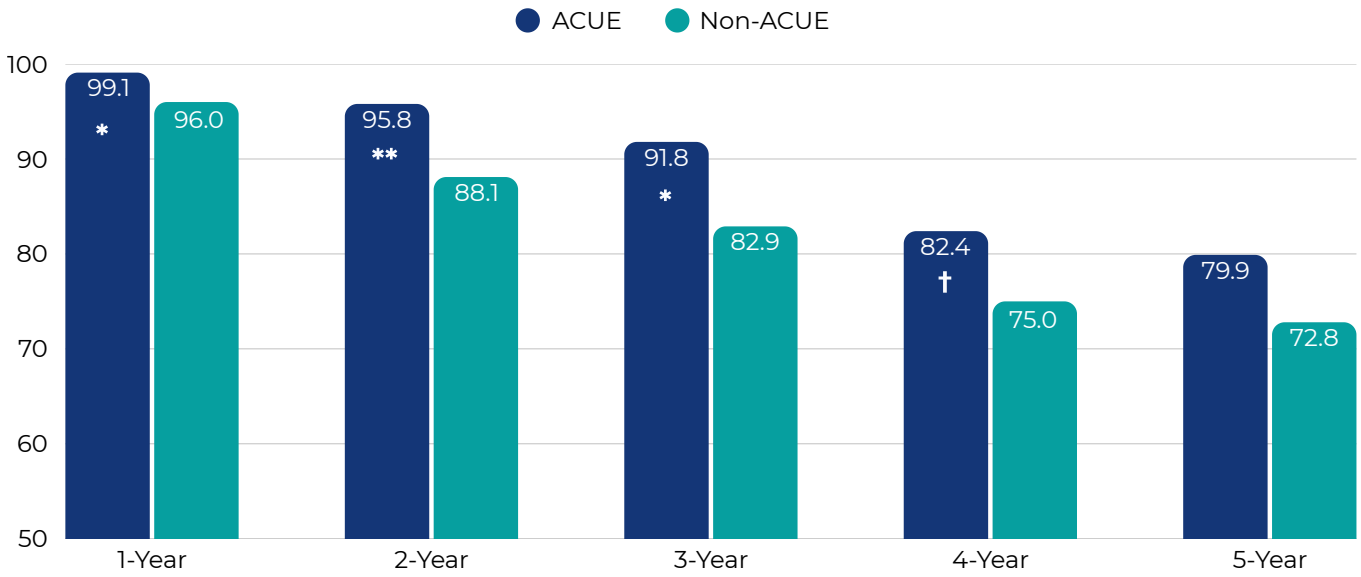
Four-Year Retention

For 4-year retention, the ACUE logit coefficient trended positive but was not statistically significant, *b* = 0.586, *SE* = 0.356, 95% CI [-0.112, 1.285], *p* = .100. The average marginal effect was marginally significant, indicating that ACUE certification was associated with a 7.40-percentage-point increase in predicted 4-year retention after ACUE enrollment, AME = 0.074, *SE* = 0.043, 95% CI [-0.009, 0.157], *p* = .082. The predicted probability of 4-year retention was 82.37% for ACUE faculty and 74.96% for matched non-ACUE observations.

Five-Year Retention

For 5-year retention, the ACUE logit coefficient trended positive but was not statistically significant, *b* = 0.507, *SE* = 0.337, 95% CI [-0.154, 1.169], *p* = .133. The average marginal effect was also positive but not statistically significant, indicating that ACUE enrollment was associated with a 7.07-percentage-point increase in predicted 5-year retention after enrollment in the ACUE course, AME = 0.071, *SE* = 0.045, 95% CI [-0.017, 0.159], *p* = .116. The predicted probability of 5-year retention was 79.86% for ACUE faculty and 72.78% for matched non-ACUE observations.

Figure 6 *Predicted Faculty Retention by ACUE Status and Follow-Up Year*



Note: † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$.

Overall Retention Findings

Across the first three follow-up periods, the estimated retention gain associated with ACUE ranged from approximately three to nine additional faculty retained per 100 ACUE faculty, corresponding to predicted retention rates that were approximately 3% to 11% higher than those of matched non-ACUE faculty observations.

Overall, these results suggest that ACUE certification was associated with significantly higher faculty retention across the first 3 years of follow-up after enrollment in the ACUE course. Although the 4- and 5-year estimates remained trending positive, they did not reach statistical significance.

Table 2

Primary Logistic Regression Results for Faculty Retention

Outcome	ACUE logit coefficient	*SE*	95% CI	*p*-value	ACUE AME	AME *SE*	AME 95% CI	AME *p*-value	Predicted retention: Non-ACUE	Predicted retention: ACUE
1-year retention	1.593	1.052	[-0.469, 3.654]	.130	0.031	0.014	[0.004, 0.058]	.023	96.05%	99.13%
2-year retention	1.227	0.602	[0.047, 2.407]	.042	0.076	0.029	[0.020, 0.133]	.008	88.14%	95.77%
3-year retention	0.939	0.474	[0.010, 1.869]	.048	0.089	0.038	[0.015, 0.163]	.019	82.90%	91.77%
4-year retention	0.586	0.356	[-0.112, 1.285]	.100	0.074	0.043	[-0.009, 0.157]	.082	74.96%	82.37%
5-year retention	0.507	0.337	[-0.154, 1.169]	.133	0.071	0.045	[-0.017, 0.159]	.116	72.78%	79.86%

Note: AME = average marginal effect. Predicted retention values are model-adjusted predicted probabilities from the logistic regression models. Models included CEM weights; standard errors clustered by Instructor ID; and controls for race/ethnicity, gender, salary tier, years at USM, academic year, total courses taught, and proportion of online/hybrid courses.

ROI Estimates

To contextualize these findings, a return-on-investment (ROI) estimate was calculated based on the 3-year retention advantage associated with ACUE certification. A standard ACUE Pathway course cohort usually includes 30 faculty; the estimate was therefore based on four standard cohorts needed to serve the 110 ACUE faculty included in the matched analytic sample. Because ACUE certification required completion of four Pathway courses, these four faculty cohorts correspond to a total of 16 Pathway course cohorts, with a total program cost of $280,000 (according to current ACUE pricing). Applying the statistically significant 3-year average marginal effect of 8.86 percentage points to these 120 faculty, the model predicts that approximately 11 additional faculty members would be retained over 3 years relative to what would be expected based on the comparison group. Considering national estimates that the total cost of replacing a full-time faculty member ranges from 90% to 200% of their annual salary (Allen et al., 2010) and the most recent national average full-time faculty salary of $105,657 (American Association of University Professors [AAUP], 2025), a conservative estimate of 90% of salary was applied, which is in the lower end of the range. The total avoided turnover costs associated with retaining these 11 additional faculty members would be approximately $1,011,011, which entails a net return of around $731,011 and an estimated ROI of approximately 261% over 3 years.[1]

Sensitivity Checks

Linear probability models (LPM) were estimated as a sensitivity check using the same matched analytic sample, CEM weights, clustered standard errors, and control variables used in the logistic regression models. These models provide a more direct estimate of the percentage-point difference in retention associated with ACUE certification.

The LPM results were consistent with the logistic regression marginal effects. ACUE certification was associated with significantly higher retention at 1, 2, and 3 years after enrollment. Specifically, ACUE faculty had a 3.33-percentage-point higher probability of 1-year retention, $b = 0.033$, $SE = 0.016$, 95% CI [0.002, 0.064], $p = .035$; a 7.70-percentage-point higher probability of 2-year retention, $b = 0.077$, $SE = 0.031$, 95% CI [0.016, 0.138], $p = .014$; and an 8.39-percentage-point higher probability of 3-year retention, $b = 0.084$, $SE = 0.040$, 95% CI [0.006, 0.162], $p = .035$.

For 4- and 5-year retention, the LPM estimates trended positive but were not statistically significant. ACUE certification was associated with a 7.70-percentage-point higher probability of 4-year retention, $b = 0.077$, $SE = 0.048$, 95% CI [-0.017, 0.171], $p = .109$, and a 7.07-percentage-point higher probability of 5-year retention, $b = 0.071$, $SE = 0.050$, 95% CI [-0.028, 0.169], $p = .158$.

[1] The ROI estimate presented here is illustrative and based on national averages rather than institution-specific salary or cost data. The average full-time faculty salary of $105,657 is drawn from the AAUP's 2024–25 Faculty Compensation Survey, which reflects all ranks and institution types across the United States. The workforce literature estimates total turnover replacement costs at between 90% and 200% of annual salary (Allen et al., 2010); a conservative lower bound of 90% was applied here to account for recruitment, onboarding, and indirect productivity losses while avoiding overstating the financial impact. Actual costs at any given institution will vary depending on faculty rank, discipline, and local labor market conditions.

Table 3

Linear Probability Model Sensitivity Checks for Faculty Retention

Outcome	ACUE coefficient	*SE*	95% CI	*p*-value
1-year retention	0.033	0.016	[0.002, 0.064]	.035
2-year retention	0.077	0.031	[0.016, 0.138]	.014
3-year retention	0.084	0.040	[0.006, 0.162]	.035
4-year retention	0.077	0.048	[-0.017, 0.171]	.109
5-year retention	0.071	0.050	[-0.028, 0.169]	.158

Note: Models included CEM weights, standard errors clustered by Instructor ID, and the same controls as the primary logistic regression models.

Overall, the LPM sensitivity checks support the same general pattern observed in the logistic regression models: ACUE certification was associated with higher faculty retention, with statistically significant differences through year 3 and a positive trend but non-significant differences in years 4 and 5 after ACUE enrollment.

Exploratory Analyses: Faculty Career Mobility

In addition to the primary retention analyses, exploratory analyses examined whether ACUE certification was associated with faculty career mobility within 5 years of the analysis reference term. These outcomes included upward and downward movement in faculty role and upward and downward movement in salary tier. These analyses were conducted using the same logistic regression models that included CEM weights; clustered standard errors by Instructor ID; and controls for race/ethnicity, gender, years at USM, academic year, total courses taught at the reference term, and proportion of online/hybrid courses taught at the reference term.

These analyses should be interpreted as exploratory because role and salary-tier movement may reflect institutional promotion and reclassification practices or other career dynamics not directly measured in this study.

Upward Faculty Role Mobility

ACUE certification was positively and significantly associated with upward faculty role mobility within 5 years. The ACUE logit coefficient was positive and statistically significant, b = 1.454, SE = 0.377, 95% CI [0.715, 2.192], $p < .001$. The average marginal effect indicated that ACUE faculty had a 15.81-percentage-point higher predicted probability of upward role mobility compared to matched non-ACUE observations within 5 years of enrolling in the ACUE course, AME = 0.158, SE = 0.049, 95% CI [0.061, 0.255], p = .001. The predicted probability of upward role mobility was 26.01% for ACUE faculty and 10.20% for matched non-ACUE observations.

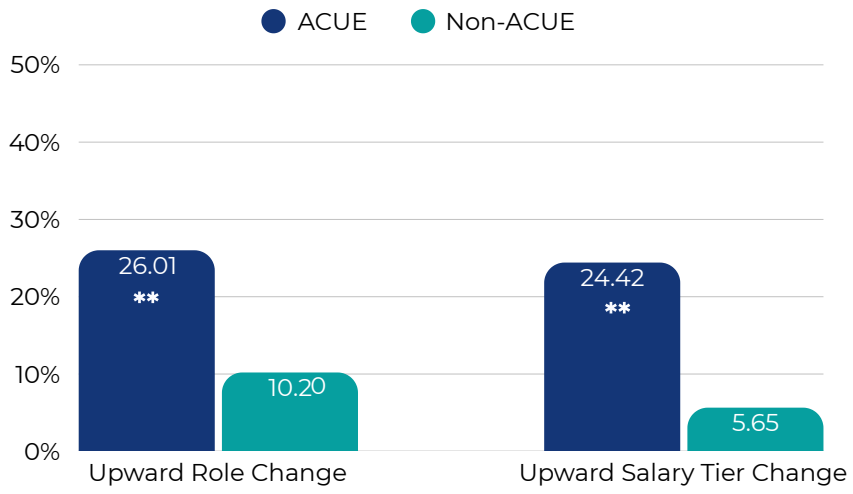
Downward Faculty Role Mobility

ACUE certification was not significantly associated with downward faculty role mobility within 5 years of ACUE enrollment. The ACUE logit coefficient trended negative but was not statistically significant, b = -0.376, SE = 0.445, 95% CI [-1.248, 0.496], p = .398. The average marginal effect was also not statistically significant, AME = -0.037, SE = 0.041, 95% CI [-0.118, 0.045], p = .377. The predicted probability of downward role mobility was 12.02% for ACUE faculty and 15.68% for matched non-ACUE observations.

Upward Salary-Tier Mobility

ACUE certification was positively and significantly associated with upward salary-tier mobility within 5 years of enrolling in ACUE. The ACUE logit coefficient was positive and statistically significant, b = 1.739, SE = 0.359, 95% CI [1.036, 2.442], $p < .001$. The average marginal effect indicated that ACUE faculty had an 18.78-percentage-point higher predicted probability of upward salary-tier mobility compared to matched non-ACUE observations, AME = 0.188, SE = 0.046, 95% CI [0.098, 0.278], $p < .001$. The predicted probability of upward salary-tier mobility was 24.42% for ACUE faculty and 5.65% for matched non-ACUE observations.

Figure 7
Predicted Probability of Upward Role and Salary-Tier Mobility by ACUE Status



Note: ** $p < 0.01$.

Downward Salary-Tier Mobility

The model for downward salary-tier mobility could not produce an interpretable ACUE estimate because downward salary movement was rare and resulted in perfect prediction and collinearity. In this model, the ACUE marginal effect was not estimable. Among the non-ACUE comparison observations retained in the model, the predicted probability of downward salary-tier mobility was 1.40%. Because the ACUE effect could not be estimated, this outcome cannot be interpreted.

Taken together, the exploratory career mobility analyses suggest that ACUE faculty were more likely than matched non-ACUE faculty observations to experience upward movement in both faculty role and salary tier within 5 years from the reference term (term of ACUE enrollment). There was no significant evidence that ACUE faculty were more likely to experience downward role mobility, and downward salary-tier movement was not estimable.

Table 4

Exploratory Logistic Regression Results for Faculty Career Mobility

Outcome	ACUE logit coefficient	*SE*	95% CI	*p*-value	ACUE AME	AME *SE*	AME 95% CI	AME *p*-value	Predicted probability: Non-ACUE	Predicted probability: ACUE
Upward role mobility within 5 years	1.454	0.377	[0.715, 2.192]	<.001	0.158	0.049	[0.061, 0.255]	.001	10.20%	26.01%
Downward role mobility within 5 years	-0.376	0.445	[-1.248, 0.496]	.398	-0.037	0.041	[-0.118, 0.045]	.377	15.68%	12.02%
Upward salary-tier mobility within 5 years	1.739	0.359	[1.036, 2.442]	<.001	0.188	0.046	[0.098, 0.278]	<.001	5.65%	24.42%
Downward salary-tier mobility within 5 years	Not estimable	—	—	—	Not estimable	—	—	—	1.40%	Not estimable

Note: AME = average marginal effect. Career mobility analyses were exploratory and used logistic regression models with CEM weights; clustered standard errors by Instructor ID; and controls for race/ethnicity, gender, years at USM, academic year, total courses taught, and proportion of online/hybrid courses at the reference term. Salary-tier controls were not included in these exploratory salary-mobility models because salary tier was directly related to the salary-mobility outcome.

Discussion

The results of this study show that ACUE certification was associated with higher faculty retention at USM, with the strongest and most consistent evidence concentrated in the first 3 years after enrollment. ACUE faculty had higher predicted retention than matched non-ACUE faculty observations across all five follow-up periods, with statistically significant differences at years 1, 2, and 3, a marginally significant difference at year 4, and a positive but non-significant difference at year 5. The consistency in this trend across all follow-up periods, together with the sensitivity checks performed, supports the robustness of this overall pattern. In the context of USM's sustained investment in ACUE, these findings provide evidence regarding the extent to which faculty who received this investment remained at USM over time.

Concretely, the first 3 years after ACUE enrollment had the most meaningful retention differences, with ACUE certification being associated with approximately three additional faculty retained at 1 year, eight additional faculty retained at 2 years, and nine additional faculty retained at 3 years per 100 ACUE faculty. These differences correspond to predicted retention rates that were up to 10.7% higher than those of matched non-ACUE faculty. While the 1-year retention rate was already high among both ACUE and non-ACUE faculty, the retention advantage became larger at 2 and 3 years after enrollment, suggesting that the potential institutional value of ACUE certification may become more visible over time as certified faculty continue to remain at the institution after completing the program.

These findings are meaningful because faculty retention is directly connected to institutional continuity, stability, and instructional capacity. When faculty remain at an institution, departments are better positioned to maintain course offerings, reduce scheduling disruption, preserve institutional knowledge, and support consistent academic experiences for students, which is particularly important when the retained faculty have participated in evidence-based professional development focused on improving teaching practices. For USM, retaining ACUE-certified faculty may help preserve the instructional capacity developed through the institution's investment in ACUE, allowing it and its students to continue benefiting from faculty who completed comprehensive, evidence-based faculty development. In this way, the results suggest that ACUE certification may contribute to institutional goals not only by supporting faculty teaching effectiveness but also by supporting longer-term faculty continuity.

The findings also extend ACUE's evidence base in an important way. Previous ACUE evaluations have mainly focused on the earlier levels of ACUE's six-level evaluation framework, particularly student engagement, student-level and course-level student outcomes, and student retention (MacCormack et al., 2018), while institutional outcomes, the sixth and broadest level in this framework, have remained comparatively underexamined. At USM specifically, prior ACUE research found that first-year students who took at least one course with an ACUE faculty member had a higher retention rate than students who did not take courses with ACUE faculty (Pippins et al., 2022). The present study builds on this prior work by shifting the focus from student retention to faculty retention, examining whether ACUE certification is also associated with institutional stability through faculty workforce continuity and whether USM retained the faculty who were part of this investment. This way, this study expands a level of the ACUE's evaluation framework that remained limited by extending prior institutional-outcome research from student retention to faculty retention, representing the first study in ACUE's research portfolio to examine a workforce outcome at the institutional level. For institutions evaluating the return on investment of faculty development initiatives, evidence connecting participation to workforce continuity may be as relevant as evidence connecting it to classroom outcomes.

Beyond extending ACUE's evidence base to a new outcome, these results also point to a possible explanation for why faculty development might be associated with retention, as prior research has suggested that faculty development may support retention by strengthening faculty confidence, professional growth, mentorship, career satisfaction, and institutional connection (Dunham-Taylor et al., 2008; Ries et al., 2009). While the present study cannot identify the specific mechanisms explaining the observed retention differences between the two groups studied, the findings are consistent with the broader idea that structured faculty development may contribute to faculty engagement and institutional commitment.

The pattern of the results also suggests that the first 3 years after ACUE enrollment may be a particularly important period for understanding the relationship between ACUE certification and faculty retention. The statistically significant findings through year 3 indicate that ACUE faculty were more likely to remain at USM during the period immediately following their participation in ACUE, when institutions may be especially focused on whether investments of institutional resources and faculty time translate into continued instructional capacity, faculty stability, and value for students. The 4- and 5-year estimates remained positive, but they did not reach conventional levels of statistical significance. These longer-term results should therefore not be interpreted as conclusive, despite suggesting a continuing positive trend. This lack of statistical significance at later follow-up points may reflect reduced precision in the data due to larger variability, changing institutional conditions, longer-term labor market dynamics, or the increasing influence of unmeasured factors over time.

From an institutional perspective, the 3-year retention findings are meaningful because these indicate the potential financial value of retention, as illustrated by the 261% ROI and over $1 million in avoided turnover costs estimates. However, the implications go beyond the specific dollar amount. Faculty turnover often creates costs that are not captured in a single budget line, including recruitment and search processes, faculty and staff time, onboarding, gaps in course coverage, and lost mentoring or institutional knowledge. Because these costs are often distributed across different offices, timelines, and responsibilities, the institutional burden of attrition can be easy to underestimate in planning and budgeting (Fried, 2023). In this context, these findings suggest that faculty development could be viewed not only as an instructional investment but also as part of a broader strategy for workforce stability. When faculty who complete ACUE certification remain at the institution, the potential value of that investment may include both avoided turnover costs and the continued presence of faculty prepared to support instructional quality and student success. This may be especially relevant for institutions operating under constrained budgets and pressure to justify professional development expenses. Thus, evidence that faculty development is associated with stronger retention gives institutional leaders an additional way to understand the value of these investments, alongside their more established contributions to teaching and student success.

In addition to the primary retention findings, the exploratory career mobility analyses provided further evidence that ACUE certification may be associated with broader faculty workforce outcomes. ACUE faculty were significantly more likely than matched non-ACUE faculty observations to experience upward movement in both faculty role and salary tier within 5 years of enrollment. Specifically, ACUE faculty were more than 2.5 times as likely to experience upward role mobility and more than 4.3 times as likely to move into a higher salary tier. These findings should be interpreted as exploratory since faculty role and salary-tier changes may reflect promotion processes, position reclassification, or individual career trajectories not directly measured in this study. Nevertheless, this pattern suggests that the association between ACUE certification and faculty outcomes may extend beyond retention alone, which highlights the value of examining faculty development in relation to longer-term career progression and institutional workforce stability in the future.

Together, these findings highlight the ACUE certification as relevant not only to teaching and student outcomes but also to faculty continuity and institutional stability, adding a faculty workforce perspective to ACUE's institutional-outcome evidence base.

Limitations

Although this study used a rigorous design and detailed institutional data, several limitations should be considered when interpreting the results. First, the study was observational, and faculty were not randomly assigned to ACUE participation. Therefore, the findings should be interpreted as evidence of an association between ACUE certification and faculty retention, rather than as causal evidence that ACUE certification directly caused faculty to remain at USM.

Despite the use of CEM to improve comparability between ACUE and non-ACUE faculty observations as well as the use of several controls in the regression models, matching and statistical controls cannot fully eliminate the possibility of unmeasured differences between faculty who became ACUE certified and those who did not. Factors such as faculty motivation, school climate, institutional commitment, career intentions, or reasons for participating in ACUE were not available in the data and may have contributed to retention patterns.

Additionally, the non-ACUE group was structured around faculty-reference-term observations rather than unique faculty members. This approach allowed the analysis to create appropriate comparison points for ACUE faculty across different semesters and avoided arbitrarily selecting a single reference term for non-ACUE faculty. However, it also means that some non-ACUE faculty appeared more than once in the comparison pool if they were eligible in multiple reference terms. The models addressed this by clustering standard errors by Instructor ID, but this structure should still be considered when interpreting the matched comparison group.

Also, faculty retention was measured as continued employment at USM at each follow-up point. While this is appropriate for examining institutional retention, this measure does not capture why faculty stayed or left, or the conditions that led to those decisions. This is important because retention rates alone may obscure differences in faculty experience, including whether departures reflect career advancement, dissatisfaction, institutional restructuring, relocation, retirement planning, or other personal or professional reasons (Spoon et al., 2023). As a result, the study can show whether ACUE certification was associated with remaining employed at USM, but it cannot explain the reasons behind faculty retention or attrition. This distinction is important because the institutional value of faculty retention is connected to continuity, cost, stability, and instructional quality, but administrative retention data alone cannot capture all of the faculty experiences and institutional conditions behind those outcomes.

Similarly, the exploratory career-mobility findings should be interpreted with caution. These analyses examined whether ACUE certification was associated with upward or downward movement in faculty role and salary tier within 5 years, but they cannot determine why those movements occurred. Changes in role or salary tier may reflect promotion, reclassification, compensation adjustments, changes in appointment type, institutional policy, or other career dynamics not directly measured in the study. In addition, salary tier was used instead of exact salary values to protect sensitive information, which means these analyses capture broad movement across salary categories rather than precise salary growth. The downward salary-tier outcome was also too rare to estimate. Therefore, the career mobility findings should be regarded as exploratory evidence of possible differences in faculty career trajectories, not as causal evidence that ACUE certification directly produced role advancement or salary growth.

In addition, the findings are based on a single institutional context. USM's institutional structure, faculty composition, ACUE implementation history, regional labor market, and retention practices may influence the results. Therefore, these findings may not be generalizable to all institutions. Replication across additional ACUE partner institutions would help determine whether similar patterns are observed in other institutional contexts, including institutions with different missions, faculty structures, student populations, and ACUE implementation models.

Finally, the ROI estimate should be interpreted as an illustrative calculation rather than a direct accounting of actual savings. The estimate applies the 3-year average marginal effect to a standard cohort size and uses national salary and turnover-cost assumptions to approximate avoided replacement costs. While this approach provides useful context for understanding the potential financial benefit of improved retention, actual institutional savings would depend on USM-specific salary levels, replacement timelines, recruitment costs, onboarding expenses, vacancy duration, and whether retained faculty positions would otherwise have required replacement.

Future research could build on this study by replicating the analysis across additional institutions; examining whether retention and career mobility patterns vary by faculty role, college, tenure status, years at institution, salary tier, or teaching modality; and incorporating additional indicators of faculty engagement, satisfaction, belonging, and institutional support.

Conclusion

The findings from this study suggest that ACUE certification is associated with higher faculty retention at USM, particularly during the first 3 years after beginning certification, with statistically significant differences at 1, 2, and 3 years and gains of up to nine additional faculty retained per 100 ACUE faculty by year 3.

These findings extend ACUE's evidence base from student- and course-level outcomes to institutional-level faculty outcomes. Building on prior USM research linking ACUE faculty to higher student retention, the present study suggests that ACUE certification may also be associated with faculty continuity, with exploratory analyses also potentially suggesting a link to upward career mobility.

Overall, the results suggest that investing in evidence-based faculty development, such as through ACUE, may provide value beyond improvements in teaching and student outcomes. At USM, ACUE certification was associated with stronger faculty retention during the first 3 years after enrollment, with meaningful implications for institutional stability and potential avoided turnover costs. Concurrently, these findings support the value of faculty development as a potential institutional strategy that supports not only instructional improvement and student success but also faculty continuity, workforce stability, and long-term institutional effectiveness.

References

Allen, D. G., Bryant, P. C., & Vardaman, J. M. (2010). *Retaining talent: Replacing misconceptions with evidence-based strategies. Academy of Management Perspectives, 24*(2), 48–64. https://doi.org/10.5465/AMP.2010.51827775

American Association of University Professors. (2025). *Annual report on the economic status of the profession, 2024–25.* https://www.aaup.org/reports-publications/aaup-policies-reports/topical-reports/annual-report-economic-status-profession-24-25

Association of College and University Educators. (2016). *Effective Teaching Practice Framework.*

Brodaty, T., & Gurgand, M. (2016). Good peers or good teachers? Evidence from a French university. *Economics of Education Review, 54,* 62–78. https://doi.org/10.1016/j.econedurev.2016.06.005

Deco, P. (2025). Measuring the costs of faculty turnover, teacher absenteeism and their implications for the performance of higher education institutions: A case study at the Faculty of Economics, Uon. *London Journal of Research in Management & Business, 25*(7), 13–29. https://www.journalspress.uk/index.php/LJRMB/article/view/1700/4506

Dee, J. R. (2004). Turnover intent in an urban community college: Strategies for faculty retention. *Community College Journal of Research and Practice, 28*(7), 593–607. https://doi.org/10.1080/10668920490467242

De Vlieger, P., Jacob, B., & Stange, K. (2017). Measuring instructor effectiveness in higher education (NBER Working Paper No. 22998). National Bureau of Economic Research. https://doi.org/10.3386/w22998

Dunham-Taylor, J., Lynn, C. W., Moore, P., McDaniel, S., & Walker, J. K. (2008). What goes around comes around: Improving faculty retention through more effective mentoring. *Journal of Professional Nursing, 24*(6), 337–346. https://doi.org/10.1016/j.profnurs.2007.10.013

Fried, M. (2023, February 7). The great resignation and higher education employees. *Ithaka S+R.* https://sr.ithaka.org/blog/the-great-resignation-and-higher-education-employees/

Iacus, S. M., King, G., & Porro, G. (2008). Matching for causal inference without balance checking [Working paper]. *SSRN*. https://doi.org/10.2139/ssrn.1152391

Iacus, S. M., King, G., & Porro, G. (2012). Causal inference without balance checking: Coarsened exact matching. *Political Analysis, 20*(1), 1–24. https://doi.org/10.1093/pan/mpr013

References

Khan, F. Q., Buhari, S. M., Tsaramirsis, G., & Rasheed, S. (2021). A study of faculty retention factors in educational institutes in context with ABET. *Frontiers in Education, 6*, Article 678018. https://doi.org/10.3389/feduc.2021.678018

Lawner, E. K., & Snow, M. (2019). Strong instruction, sustained: *Higher student evaluations and grades at the University of Nevada, Reno.* Association of College and University Educators. https://acue.org/wp-content/uploads/2019/09/ACUE_UofNevadaReno_spreads_proof_052820.pdf

Lawner, E. K., & Snow, M. (2020). *Advancing academic equity at Broward College: Improved course completion and passing, particularly among Pell-eligible and Black students. Association of College and University Educators.* https://acue.org/wp-content/uploads/2025/12/ACUE_Broward-Tech-Report_052020.pdf

Lawner, E. K., Snow, M., & Burt, T. (2019). *Grades up: Quality teaching at the heart of student success in San Francisco.* Association of College and University Educators. https://acue.org/wp-content/uploads/2019/06/ACUE_CCSF-Grades-Up-Report_100120.pdf

MacCormack, P., Snow, M., Gyurko, J., & Candio Sekel, J. (2018). *Connecting the dots: A proposed accountability method for evaluating the efficacy of faculty development and its impact on student outcomes.* Association of College and University Educators. https://acue.org/wp-content/uploads/2018/07/WP3_Connecting-the-Dots.pdf

Park, E. S., & Xu, D. (2024). The effect of active learning professional development training on college students' academic outcomes. *Journal of Research on Educational Effectiveness, 17*(1), 43–64. https://doi.org/10.1080/19345747.2022.2151954

Pippins, T., Chasteen, A., Lester, K. F., Lawner, E. K., & Snow, M. (2021). *Gateway to gains: Improved grades, passing and DFW rates in gateway courses taught by ACUE faculty at the University of Southern Mississippi.* Association of College and University Educators. https://acue.org/wp-content/uploads/2025/10/USM-Technical-Report-Gateway-to-Gains-2021.pdf

Pippins, T., Hartigan, L., Lawner, E. K., & Snow, M. (2021). *Worth the wait: Improved grades in sections taught by ACUE faculty at Purdue University Northwest in the year after they earned their credential.* Association of College and University Educators.

Pippins, T., Lawner, E. K., & Snow, M. (2021). *A lasting impact: Improved grades at Texas Woman's University. Association of College and University Educators.* https://acue.org/wp-content/uploads/2025/12/TWU-3-year-cohort-A-Technical-Report_2021.pdf

References

Pippins, T., Lawner, E. K., & Snow, M. (2022). *First year and beyond: Higher retention rate among first-year students taught by ACUE faculty at the University of Southern Mississippi. Association of College and University Educators.* https://acue.org/wp-content/uploads/2025/10/USM-Retention-Technical-Report_2022.pdf

Pippins, T., Tipton, E., Lawner, E. K., & Snow, M. (2023). *Positive average effect of ACUE-certified faculty on student course outcomes: A meta-analysis.* Association of College and University Educators. https://acue.org/wp-content/uploads/2025/10/ACUE-Meta-Analysis-Technical-Report-2023.pdf

Ries, A., Wingard, D., Morgan, C., Farrell, E., Letter, S., & Reznik, V. (2009). Retention of junior faculty in academic medicine at the University of California, San Diego. *Academic Medicine, 84*(1), 37–41. https://doi.org/10.1097/ACM.0b013e3181901174

Santiago, N., Santos, T., & Centeno, A. K. S. (2022). Factors affecting teachers' turnover: Basis for a proposed retention program. *International Journal of Multidisciplinary: Applied Business and Education Research, 3*(9), 1791–1797. https://doi.org/10.11594/ijmaber.03.09.18

Spoon, K., LaBerge, N., Wapman, K. H., Zhang, S., Morgan, A. C., Galesic, M., Fosdick, B. K., Larremore, D. B., & Clauset, A. (2023). Gender and retention patterns among U.S. faculty. *Science Advances, 9*(42), eadi2205. https://doi.org/10.1126/sciadv.adi2205

The University of Southern Mississippi. (2023). *Financial statements: Fiscal year ended June 30, 2023.* https://www.usm.edu/controller/_files/_financials/fy2023_audited_financial_statements.pdf

Wheeler, L. B., & Bach, D. (2021). Understanding the impact of educational development interventions on classroom instruction and student success. *International Journal for Academic Development, 26*(1), 24–40. https://doi.org/10.1080/1360144X.2020.1777555



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