



More As and Fewer Fs Across 150 Classes, Enrolling 4,582 CCSF Students, Taught by ACUE-credentialed Faculty

No Similar Improvement Seen in Comparison Sections

Background

During the 2017-2018 academic year the inaugural cohort of 35 faculty at City College of San Francisco (CCSF) completed the ACUE course in Effective Teaching, earning a credential in effective college instruction. The project was funded by CCSF's Office of Student Equity, and thus recruitment of faculty focused on courses with achievement gaps for students at risk of dropping out, underrepresented minorities, foster children, and non-traditional or returning students. Analysis of student outcomes was conducted using both course data and a student questionnaire.

Key Findings

- There was a significant increase in the rate of students receiving As and a significant decrease in the rate of students receiving Fs in sections taught by ACUE-credentialed faculty, during the time period when faculty earned their credential (2017-2018), (As: $F(1, 248) = 6.57, p = .011$; Fs: $F(1, 292) = 5.56, p = .019$).
 - The rate of As in sections taught by ACUE-credentialed faculty was 46.1% in 2016-2017 and 51.9% in 2017-2018.
 - The rate of Fs in sections taught by ACUE-credentialed faculty was 9.2% in 2016-2017 and 6.7% in 2017-2018.
 - In other words, 226 more students received As and 95 fewer students received Fs in 2017-2018 than would have if the sections taught by ACUE-credentialed faculty had the same rates of As and Fs as their sections in the previous year. The rate of Fs in sections taught by ACUE-credentialed faculty was 9.2% in 2016-2017 and 6.7% in 2017-2018.
- The same improvement was not seen in comparison sections (As: $F(1, 1,105) = 1.24, p = .265$; Fs: $F(1, 1,105) = 0.64, p = .423$).
 - The rate of As in comparison sections was 37.4% in 2016-2017 and 36.0% in 2017-2018.
 - The rate of Fs in comparison sections was 8.8% in 2016-2017 and 9.4% in 2017-2018.
- Additional analyses showed that average class grades among sections taught by ACUE-credentialed faculty improved significantly during the time period when faculty earned their credential (2017-2018), $F(1, 248) = 5.56, p = .019$.
 - The average class grade for sections taught by ACUE-credentialed faculty was 2.93 in 2016-2017 and 3.08 in 2017-2018.
 - This .15 increase in average class grades is the equivalent of 15% of the students in each section improving a full letter grade, on average.
- The improvement in grades among sections taught by ACUE-credentialed faculty occurred despite their already having higher average class grades than the comparison sections in the academic year before earning their credential (2016-2017) $F(1, 631) = 5.68, p = .017$.
 - In 2016-2017, the average class grade for sections taught by ACUE faculty was 2.93, while the average grade for comparison sections was 2.78.
- In contrast, there was not a significant change in class grades from 2016-2017 to 2017-2018 among comparison sections, $F(1, 1,130) = 1.25, p = .265$.
 - The average class grade for comparison sections was 2.78 in 2016-2017 and 2.74 in 2017-2018.
- As a result, the difference in average class grades between the sections taught by ACUE-credentialed faculty and comparison sections was significantly larger in 2017-2018 than in 2016-2017, $F(1, 1,378) = 5.42, p = .020$, with ACUE sections outperforming comparison sections in both years.



- During the spring 2018 semester, students of ACUE-credentialed faculty reported having significantly higher self-monitoring self-efficacy compared to students of the same faculty in the fall 2017 semester, $F(1, 529) = 4.46, p = .035$.
 - This scale is composed of items in which students self-report confidence in their ability to: keep up to date with their schoolwork, take good class notes, manage time effectively, and prepare for an exam or complete a long assignment.
 - Self-efficacy is one component of the academic mindsets that promote academic performance through academic perseverance and academic behaviors, according to the noncognitive framework (Nagaoka et al., 2013).

Methodology

In total, grade data were analyzed for the 252 course sections (102 in 2016-2017 and 150 in 2017-2018) taught by 32 ACUE-credentialed faculty and 1,134 course sections (538 in 2016-2017 and 601 in 2017-2018) taught by 271 non-credentialed faculty, with a total of 42,562 non-unique student enrollments (7,677 in sections taught by ACUE-credentialed faculty and 34,885 in sections taught by non-credentialed faculty). CCSF provided section-level grade data, with individual identifiers removed, for the 2016-2017 and 2017-2018 academic years for all course sections that were primarily taught by ACUE-credentialed faculty. Three ACUE-credentialed faculty were not the primary faculty for any sections during the 2017-2018 year and thus were excluded from all data and analyses. CCSF also provided comparison data for these course sections. For courses where at least one section was taught by faculty who were not ACUE-credentialed, the comparison group included all of the sections taught by non ACUE-credentialed instructors. When all sections of a course were taught by ACUE-credentialed faculty, the most similar course was identified, and all sections of that course taught by non-credentialed faculty were used for the comparison sections. Analysis of average class grades included only students who received an A-F letter grade; grades were then converted to a 4.0 scale to calculate the average class grade.

In addition, ACUE-credentialed faculty distributed the ACUE student questionnaire to students in their courses at the end of the fall 2017 and spring 2018 semesters—the semesters during which they earned their credential. We analyzed the 586 responses received from students of 12 ACUE-credentialed faculty who had responses for both the fall and spring semesters.

Reference

- Nagaoka, J., Farrington, C. A., Roderick, M., Allensworth, E., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2013). Readiness for college: The role of noncognitive factors and context. *Voices in Urban Education, 38*, 45-52.

¹ Some sections had more than one instructor. Sections were classified as ACUE or comparison based solely on the primary instructor.