



Analysis Brief

A PERIODIC ANALYSIS BY THE OFFICE OF INSTITUTIONAL RESEARCH

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Understanding the Student–Faculty Ratio

Full-time Equivalent Student (FTES), Full-time Equivalent Faculty (FTEF), and Student–Faculty Ratio (SFR) are three important measures used by the university and are based on official policy definitions as prescribed by the California State University, Office of the Chancellor. These measures are used for a variety of purposes, including course management, faculty workload analysis, as well as enrollment and budget planning. Every term or semester, each of the California State University (CSU) campuses submit their student enrollment data files via the Chancellor's Office Enrollment Reporting System, Student (ERSS) as of census date. "Census date" is a specific date in which the enrollment database of the registrar's office is "frozen." The use of a specified census date is standard practice at colleges and universities for finalizing enrollment counts and enabling campuses to compare like data over time and across institutions. In addition, the campuses also report at census date, the course section enrollment and faculty workload data to the Chancellor's Office Academic Planning Database (APDB).

APDB provides information on all persons who are compensated from instructional budget accounts and persons having teaching responsibilities in the CSU regardless of funding sources. In addition, APDB contains information on each class section that is offered and the resources used to teach these courses each term.¹

The Chancellor's Office in turn provides several official system-wide statistical reports that display annualized college year and fall term FTES, FTEF, and SFR for each campus.²

Annualized Full-Time Equivalent Student (FTES)

FTES is a measurement of enrollment derived by dividing total student credit hours (SCH) for a term by 12 for graduate students (graduate students are those enrolled in master's and doctoral degree programs), and by 15 for all other students. Therefore, undergraduate and graduate students are expected to carry a course load of 15 and 12 units respectively per term to graduate in 4 years for undergraduates and in 2.5 or 3 years for graduate students.

To annualize the **state-supported** FTES for the College Year (CY) the calculation is as follows:

- Annualized FTES = (Summer FTES + Fall FTES + Winter FTES + Spring FTES)/2

The Chancellor's Office uses FTES for enrollment planning and management, facilities planning and assessments, and for the budget allocation process. FTES enrollment is based on the campus' official headcount enrollment census. As previously mentioned, the census date is a snapshot that includes submittal of enrollment files for students (ERSS), in addition to faculty workload assignments – which is further explained below – and student course section enrollments (APDB). It is important to note that while FTES enrollment can be calculated using both ERSS and APDB data – most often yielding slightly different results – the FTES in this publication are consistent with those reported in the ERSS. This is also consistent with the CSU Statistical Abstract³ in calculating the SFR as further described below.

Annualized Full-Time Equivalent Faculty (FTEF)

FTEF is a measure of percent of time a faculty member is performing direct instructional activities. There are generally two types of faculty FTE: Employment and Instructional. For this publication, and consistent with the CSU Statistical Abstract, we will focus on the Instructional FTEF. In the CSU system, this unit of measure is also typically referred to as the Instruction Faculty Fraction (IFF) and is used to measure the teaching load of faculty in a given term or semester. It does not however, take into consideration the amount of time and energy devoted to other indirect instructional tasks.

Note. CSU Stanislaus converted from a 4-1-4 calendar to a semester calendar starting college year 2010/11. The calendar change has affected how the full-time equivalent faculty (FTEF) figures are calculated, but not the full-time equivalent student (FTES) figures.

¹ Enterprise Systems Applications Guide, The California State University, Office of the Chancellor, Information and Application Services, Enterprise Systems Group, May 2009.

² CSU Office of the Chancellor, Academic Discipline Reports; http://www.calstate/es/intranet/applications/aa/apdb/apdb_discipline-report-by-campus.shtml; CSU Office of the Chancellor, CSU Statistical Abstract; <http://www.calstate.edu/as/abstract.shtml>

³ CSU Office of the Chancellor, CSU Statistical Abstract; <http://www.calstate.edu/as/abstract.shtml>

An IFF of 1.0 designates one FTEF. All full time faculty positions are reported as 1.0 FTE, which includes all tenured and tenure-track faculty members as well as full-time lecturers. The IFF for less than full-time faculty is based on the sum of direct instruction Weighted Teaching Units (WTU) during each semester or term, divided by the equivalent full time load, and is represented as a fraction. The Instructional FTEF is defined as WTU divided by 15 regardless of faculty position status (i.e., tenured, tenure-track, etc.) starting in college year 2010-11; 12.5 for fall and spring terms and WTU divided by 5 for winter terms prior to college year 2010-11. Each department reports the Instructional FTEF for each faculty member in the Faculty Workload Report. The academic departments review and make changes to detailed section information where appropriate to accurately express the Instructional FTEF. The Instructional FTEF from the workload report is used for all subsequent faculty reports.

The college year **state-supported** Instructional FTEF calculations for CSU Stanislaus are as follows:⁴

- Annualized Instructional FTEF (semester calendar starting CY 2010/11) = (Summer FTEF + Fall FTEF + Winter FTEF + Spring FTEF)/2
- Annualized FTEF (4-1-4 calendar prior to CY 2010/11) = [(Fall FTEF x 13)+(Winter FTEF x 4) + (Spring FTEF x 13)]/30

Annualized Student–Faculty Ratio (SFR)

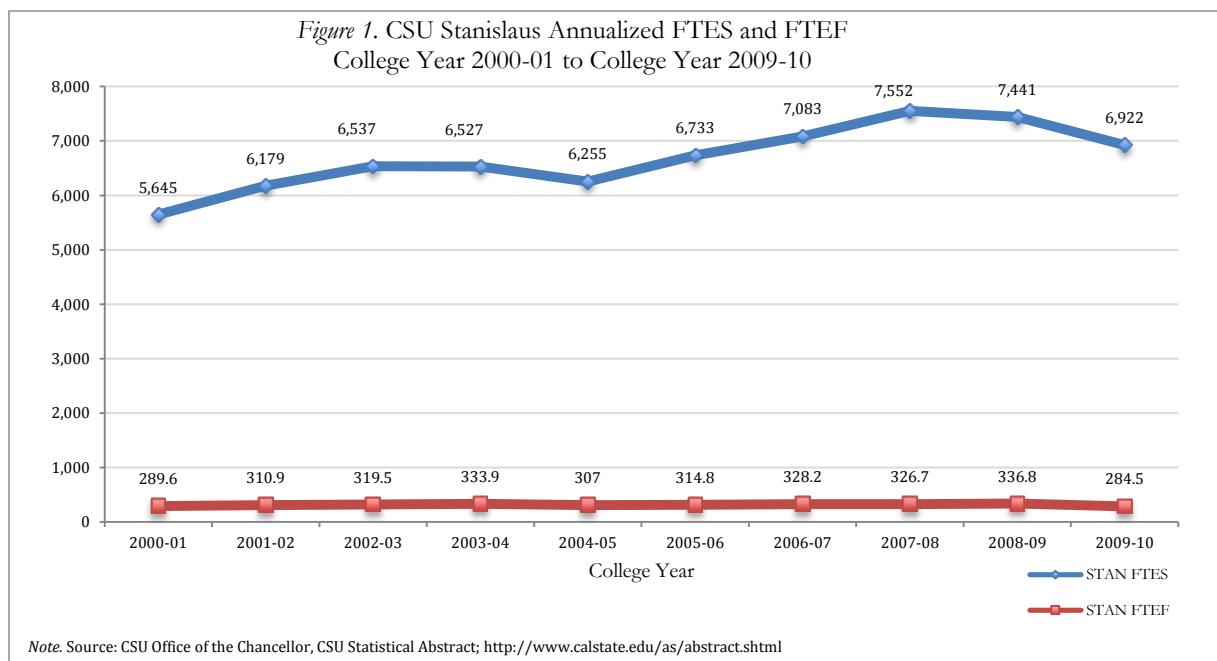
The SFR is considered a very important figure for any university and a good indicator for quantifying what academic life is like on campus. Not to be confused with average class size, the SFR more precisely indicates the relationship between the number of students and the number of faculty. The SFR is the result or quotient of the number of full-time equivalent students (FTES) divided by the number of full-time equivalent faculty (FTEF). SFR information is more precisely depicted by discipline, department, or college and is utilized as a measure for such groupings, and would not be used for individual class section evaluation. The calculation is designated as follows:

- Annualized SFR = FTES/FTEF

Trends: FTES, FTEF, and SFR

Based on census date reports of enrollment, faculty workload, and course section enrollments, the Chancellor's Office publishes the annualized FTES, FTEF, and SFR in the CSU Statistical Abstract.

Figure 1 displays the college year (CY) trends in FTES and FTEF as reported in the Chancellor's Office Statistical Abstract. The most recent college year reported in the Statistical Abstract is 2009-10. The FTES increased from 5,645 in 2000-01 to 6,922 FTES in 2009-10. This is an increase of 1,277 FTES or 22.6 percent.



⁴ Summer and Winter term include only state-supported instruction. University Extended Education (UEE) instruction not included.

The FTEF on the other hand changed very little during this period. In 2000-01 the FTEF was 289.6 (which had risen to its highest point in 2008-09 at 336.8) and subsequently dropped to 284.5 in 2009-10. Overall, from 2000-01 to 2009-10 the FTEF declined by about -1.8 percent from 2000-01.

Figure 2 displays the SFR for the same period (CY 2000-01 to 2009-10). The SFR is also compared system-wide. The CSU Stanislaus SFR changed from 19.49 in 2000-01 to 24.34 in 2009-10. The system-wide average for CY 2009-10 was 22.76. Throughout most of this period, the trend line shows CSU Stanislaus above the system-wide average.

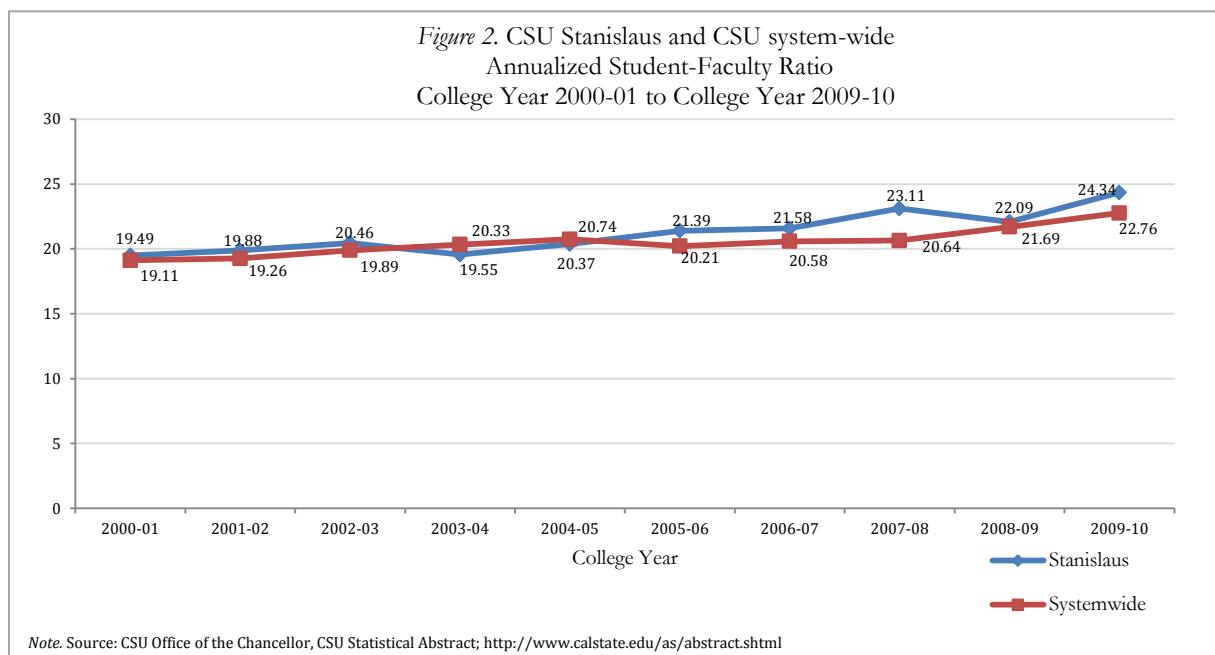


Figure 3 shows the trend lines for fall term FTES and FTEF (fall 2000 to fall 2011). The FTES for fall 2000 was 5,181, and increased to 7,657.2 FTES by fall 2011. This is an increase of 2,476.2 FTES or 47.8 percent. By comparison, the change or increase in FTEF was small and represents an increase of 8 percent since fall 2000. The fall 2000 FTEF was 294.8; by fall 2011 the FTEF was 318.3. The high point during this period was in fall 2007 at 369.5 FTEF.

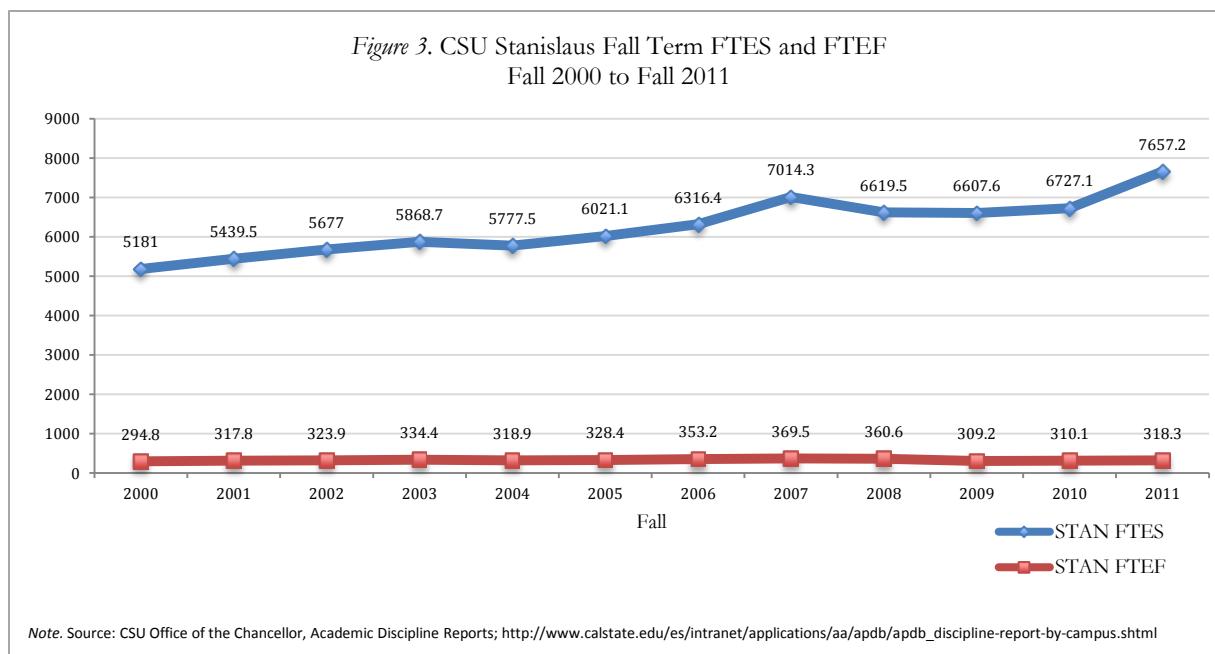
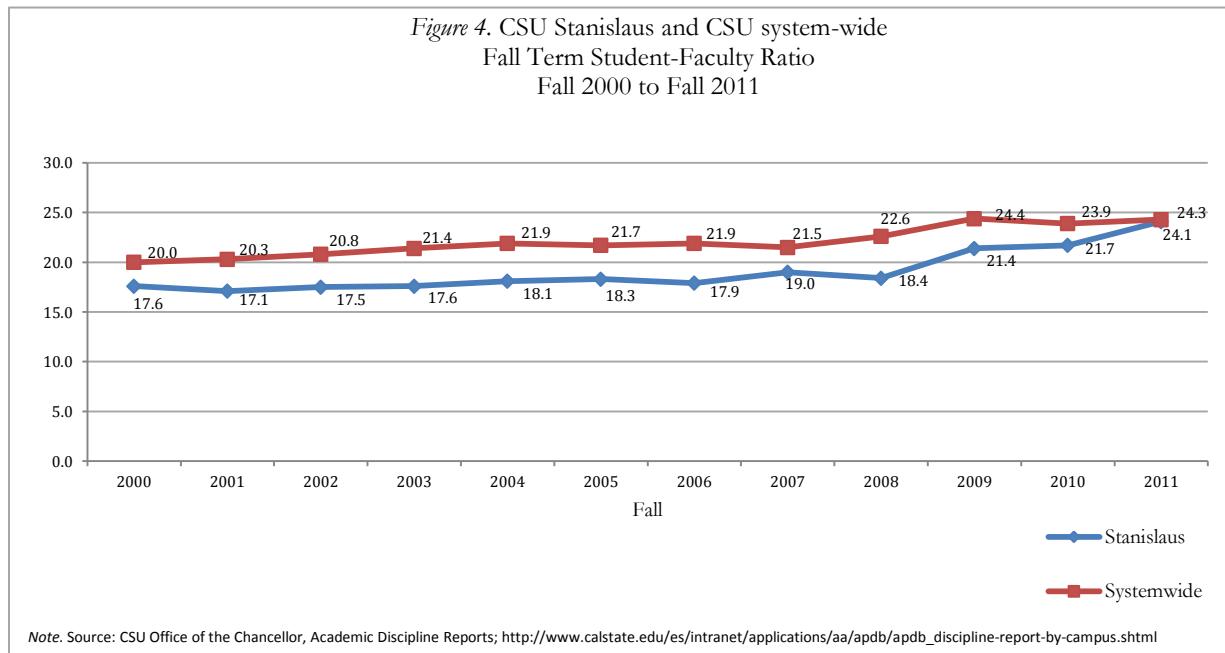


Figure 4 shows the fall term trend in SFR for CSU Stanislaus as well as system-wide for the same period. Throughout this period, while the CSU Stanislaus SFR was steadily increasing, it was also below the system-wide average. However, as the trend line shows, the CSU Stanislaus SFR caught up to the system-wide average by fall 2011. The SFR for CSU Stanislaus was 17.6 in fall 2000. By fall 2011 the SFR reached 24.1. The system-wide average changed from 20.0 in fall 2000 to 24.3 by fall 2011. Since fall 2008, the CSU Stanislaus SFR has been on a sharp upward path.



Concluding Remarks

Official Chancellor's Office statistical reports of CSU Stanislaus reveal the same pattern and trend for college year and fall term enrollment data: CSU Stanislaus experienced an overall increase in SFR during the past 10 years; however the increase has been particularly abrupt in recent years. What has changed? The university, as well as all campuses within the CSU system, is challenged by an extremely difficult budget. Significant reductions in resources have resulted in significant reductions in the number of faculty (declines more so among part-time instructors), which decreases the FTEF. However, the student FTES has continued to increase. The results are straightforward: more FTES with less FTEF produces a higher SFR.

These facts suggest a few key questions: What is the appropriate SFR for CSU Stanislaus? What is the impact of SFR on student learning outcomes? Moreover, the impact of SFR is likely to differ across curriculum and disciplines. What are the cost implications of SFR? Has the increase in SFR allowed the University to absorb some of the budget cuts without affecting other divisions, as would otherwise be the case? Should we compare our SFR to other similar institutions like the CSU?

Is it possible that SFR could be leveraged with technology, new pedagogy, student assistants and other tactics with no harm or negative impact on student learning outcomes and graduation rates?

About the Office of Institutional Research (IR)

IR is responsible for compiling student data, and for analyzing and presenting statistical information from many university-wide sources regarding applications received, new enrollments, continuing enrollments, credentials awarded and degrees conferred for each term of the college year. IR also fulfills the reporting requirements of the Office of the Chancellor, the State of California Legislature, as well as federal reporting requirements, and is also central to fulfilling the university's need for informed decision-making.