

OFFICE OF PLANNING, RESEARCH, AND ACCREDITATION

Saddleback College Awards

2014/2015 Academic Year Data and Long Term Trends in Degrees and Certificates Awarded

Date Created: 2/19/2016

Last Updated: 2/19/2016

Executive Summary:

- The report assesses the number and type of awards conferred by Saddleback College during the 2014/2015 academic year and examines trends in the number and type of awards conferred.
- The report's objectives are to make policymakers, local college officials, and elected boards aware of system and college performance in specific areas of effort and to inform the public about overall system performance.
- As with all research, certain limitations must be considered. The limitations include the following:
 - Short-term trend analysis is inherently tenuous, especially when the observed change has only occurred over a one-year period.
 - In order to facilitate comparisons of Saddleback College and Statewide data this report does not capture all the types of State Chancellor- approved awards, for example, noncredit awards, since those are not included in the Saddleback College data.
 - The analysis is based on data available on the State Chancellor's office Data Mart. Each award is counted once regardless of how many awards are given to a specific student. A single student may have received multiple awards.

Key Findings:

- Saddleback College awarded more degrees and certificates in 2014-2015 than during any previous academic year.
- When measured as change from 2005/2006, the growth in Saddleback College's awards exceeds the growth Statewide.
- The mix of award types at Saddleback College differs from the mix of award types Statewide.
- The greatest number of awards at Saddleback College is in the Interdisciplinary Studies program.

Findings by Year

- The total number of awards at Saddleback College remained relatively constant from 1994/1995 through 2006/2007.
- From 2006/2007 through 2009/2010 the total number of awards increased by 114%; from 1,274 up to 2,732.
- A similar rate of increase occurred from 2013/2014 to 2014/2015 when total awards increased by 20.68% in a single year, from 2,757 up to 3,327.

Findings by Type of Award

- Saddleback College awarded 1,609 certificates requiring at least 30 and less than 60 semester units in 2014/2015, accounting for 48.36% of all awards conferred.

Findings by Program:

- In 2014/2015, the Interdisciplinary Studies program awarded 50.92% of all awards.

Introduction:

The California Community Colleges serve more than 2.76 million students and is the largest system of higher education in the nation. The state's 112 community colleges provide workforce training, teach basic math and English, and prepare students for transfer to four-year universities and colleges. Saddleback College recognizes student accomplishment by awarding degrees and certificates of various types.

Types of Chancellor-Approved Degrees Awarded at Saddleback College

For all associate degrees, it is important to maintain the philosophy articulated in the Program and Course Approval Handbook, Fifth Edition published by the Chancellor's office in September, 2013. The Handbook points out that any "associate degree represents more than an accumulation of units. Instead, it embodies completion of a well-defined pattern of learning experiences that are designed to develop certain capabilities."

The key regulations regarding associate degree requirements are found in the Education Code. The associate degree is comprised of three sections: general education, a major or an area of emphasis, and additional graduation requirements or electives, if necessary, to bring the total units to a minimum of 60 semester units. All associate degrees that may appear by name on a student transcript or diploma require Chancellor's Office approval, whether they are intended primarily for employment preparation (CTE), as a record of academic achievement, or to prepare for transfer.

All associate degrees in California are one of four general types:

- Associate of Arts (A.A.)
- Associate of Science (A.S.)
- Associate in Arts for Transfer (A.A.-T)
- Associate in Science for Transfer (A.S.-T)

The associate degree for transfer must include a major or area of emphasis consisting of a minimum of 18 semester units.

Associate of Arts Degree: To earn an Associate of Arts Degree (non-transfer) from Saddleback College, a student would need to complete the general education requirements and the major requirements.

Associate of Science Degree: To earn an Associate in Science Degree (non-transfer) from Saddleback College, a student would need to complete the general education requirements and the major requirements. Major requirements can be met by completing the program in one of the Natural Sciences (Astronomy, Biology, Chemistry, Computer Science, Geology, or Physics) or Engineering **or** by completing an occupational (certificate) program.

Associate of Arts or Science for Transfer Degree: The Student Transfer Achievement Reform Act, also known as SB 1440, signed into law in September 2010, specifies that awarding an A.A.-T or A.S.-T degree requires students to complete 60 semester units that are eligible for transfer to the

California State University, including both of the following: the IGETC or the CSU GE-Breadth requirements, and a minimum of 18 semester units in a major or area of emphasis, while maintaining a minimum grade point average of 2.0 and grade of C or better in all courses required for the major or area of emphasis.

The Chancellor's office published the following description of the benefits of the Associate of Arts for Transfer (A.A. – T) and the Associate of Science for Transfer (A.S. – T) degrees when they were introduced in 2012.

AA-T and AS-T degrees offer tremendous benefits to our students desiring transfer to CSU. Most importantly, these new degrees provide clear, statewide curricular pathways that students can follow as they pursue transfer to any CSU campus. Upon completion of these degrees, students will be guaranteed admission to a CSU campus with junior standing. While not guaranteed admission to their campus of choice, students will be given priority consideration for admission to their local CSU campus and to any CSU campus that offers a program that has been designated as "similar" by CSU. Once enrolled at CSU, students will be able to complete a Bachelor of Arts or Science degree with no more than 60 additional units. Given these benefits, it is clear that these degrees represent a vast improvement in how California's systems of public higher education serve our students. Recent changes in admissions policies at the CSU which have significantly increased the importance of these degrees to our students and colleges. As a result of deep cuts in state funding, CSU has severely restricted admissions for the Spring 2013 term and will only be admitting California community college transfer students possessing AA-T and AS-T degrees. As long as tight state budgets persist, the degrees for transfer may be the only option available for our students attempting to transfer to CSU. This reality significantly elevates the need for our colleges to increase the number of AA-T and AS-T degrees offered.

The Chancellor's office reported that "Roughly 50,000 community college students transfer annually to the California State University system. In the past, most community college students transferred with an average of 80 semester units when only 60 semester units are required. Then, upon arrival at the California State University, they often take excess units to make up for courses that did not transfer from their community college." The Student Transfer Achievement Reform Act, also known as SB 1440, signed into law in September 2010, defines the A.A.-T/A.S.-T as having 60 transferrable units that include a minimum of 18 units in a major or areas of emphasis and an approved general education curriculum (either IGETC or GE Breadth).

Types of Chancellor Approved Certificates Awarded at Saddleback College:

In 2015, a California Community Colleges task force grappled with how to improve workforce education within the system. The task force had one goal: to close the skills gap that employers report is a barrier to filling existing jobs and fueling new job creation. The recommendations of the task force call on the community college system to create, adapt, and maintain quality career technical education programs responsive to labor market needs.

Certificate of Achievement: The awarding of a Certificate of Achievement acknowledges to the recipient and potential employers that all courses in an approved occupational program have been

completed. The certificate may appear by name on the student's transcript and requires a rigorous review process.

Certificates requiring more than 60 semester units: From 2009/2010 to 2014/2015 Saddleback College awarded certificates requiring more than 60 semester units in the Interior Design and Merchandising Program (49 awarded) and the Registered Nursing Program (617 awarded).

Certificates requiring 30 but less than 60 semester units: IGETC and CSU-GE certificates are described in particular and are included in the category "Certificates requiring 30 but less than 60 semester units" since there are specific advantages attached to this certificate. The certificate can be awarded upon completion of the Intersegmental General Education Transfer Curriculum (IGETC) or California State University General Education Breadth Certification (CSU-GE). These certificates were first offered at Saddleback College in the 2008'2009 academic year. According to the 2015 State of the System Report, "In 2015, the California Community Colleges forged a guaranteed transfer agreement with nine Historically Black Colleges and Universities. Under the agreement, students who apply to the schools and obtain a transfer-level associate degree with a GPA of 2.5 or higher and complete either the IGETC or the CSU-GE will be guaranteed admission with junior standing."

Certificates requiring 18 but less than 30 semester units:

Purpose:

The report assesses the number and type of awards conferred by Saddleback College during the 201/2015 academic year and examines trends in the number and type of awards conferred. The report's objectives are to make policymakers, local college officials, and elected boards aware of system and college performance in specific areas of effort and to inform the public about overall system performance.

Limitations:

As with all research, certain limitations must be considered. The limitations include the following caveats. Short-term trend analysis is inherently tenuous, especially when the observed change has only occurred over a one-year period, as was the case with the increase in awards from 2013/2014 to 2014/2015. In order to facilitate comparisons of Saddleback College and Statewide data this report does not capture all the types of chancellor-approved awards, for example, noncredit awards and awards required less than since those are not included in the Saddleback College data. The available data does not allow for the tracking of individual students, and a single student may have received multiple awards. The charts and analysis included in this report may suggest to the reader the presence of a correlation between the introduction of new degrees and certificates and increases in the overall number of awards or the mix of awards by type, the reader must always be aware that correlation does not prove causation.

Scope of Study:

The degrees and certificates studied in this research included only those degrees and certificates that are “Chancellor approved”, awarded at Saddleback College, and reflected in the data mart.

Methods:

The Office of Research, Planning and Accreditation (OPRA) examined data publicly available on the California Community Colleges Chancellor’s Office Management Information Systems Data Mart (data mart). The data mart provides information about students, courses, student services, outcomes, and faculty and staff. The emphasis of the data mart is to answer the questions of administrators, educators, parents, students, state leaders, and professional organizations. Because the data mart is aimed at supplying information to a wide variety of users, the interface and query functions insure the data are easily accessed and processed.

Data was first extracted on a statewide basis for Chancellor-approved degrees and certificates. From this data, only those degrees and certificates offered at Saddleback College were selected. The degrees include: Associate of Arts for Transfer (A.A.-T), Associate of Science for Transfer (A.S.-T), Associate of Arts (A.A.), and Associate of Science (A.S.). The certificates include: Certificates requiring more than 60 semester units, Certificates requiring 30 but less than 60 semester units, and Certificates requiring 18 but less than 30 semester units. As a group, these certificates are generally termed Certificates of Achievement.

At the second step, data was extracted for Saddleback College. This data was disaggregated based on degree type, certificate type, and utilizing the advanced layout capabilities of the data mart by program area based on the Taxonomy of Programs (TOP) using both two-digit TOP codes and six-digit TOP codes.

Finally, enrollment data was extracted from the data mart for Saddleback College.

The data mart does not allow for the disaggregation by gender or by ethnicity when degrees and certificates are the outcome of interest.

Charts were prepared to visually present the data to enhance understandability using the charting features of Microsoft Excel.

A number of methods for the calculation of growth rates were considered:

- The “Straight-Line Growth” (SLG) technique allows for the calculation of percent change from one period to another from the formula

$$PR = \frac{(V_{Ending} - V_{Beginning})}{V_{Beginning}} \times 100$$

Where PR = Percent Rate
 V_{Ending} = Ending Value
 $V_{Beginning}$ = Beginning Value

Using this technique, the *annual* percentage growth rate is PR divided by N, the number of years. The advantage of this technique is ease of calculation. The disadvantage is that this technique does not allow for autocorrelation in the data (where year 1 is more closely related to year 2 than to year 5). The volatility of the data remains to be seen in the visual depiction of the data.

For example, calculating the straight-line growth rate for change in awards conferred at Saddleback College from 1994/1995 (1,263 awards) to 2014/2015 (3,327 awards), a period of twenty years, yields a percent rate of 163.42% or 8.17% /year (8.17% of the beginning value of 1,263 is added each year to reach an ending value of 3,327 after 20 years).

- The “Compound Annual Growth Rate” (CAGR) technique allows for the calculation of a smoothed rate of increase. It describes the rate at which a value would have changed if it had grown at a steady year over year rate (which rarely happens, and clearly did not happen in the case of the number of awards conferred at Saddleback College over 20 years). The CAGR is a way to smooth out the increases so that they may be more easily understood. The formula for calculating CAGR is

$$CAGR = \left(\frac{V_{Ending}}{V_{Beginning}} \right)^{\left(\frac{1}{\# \text{ of years}} \right)} - 1$$

Where CAGR = Compound Annual Growth Rate
 V_{Ending} = Ending Value
 $V_{Beginning}$ = Beginning Value

Fortunately, this rather complex formula can be calculated with the aid of an online calculator (<http://www.investopedia.com/calculator/cagr.aspx>). Once again, the volatility of the data remains to be seen in the visual depiction of the data.

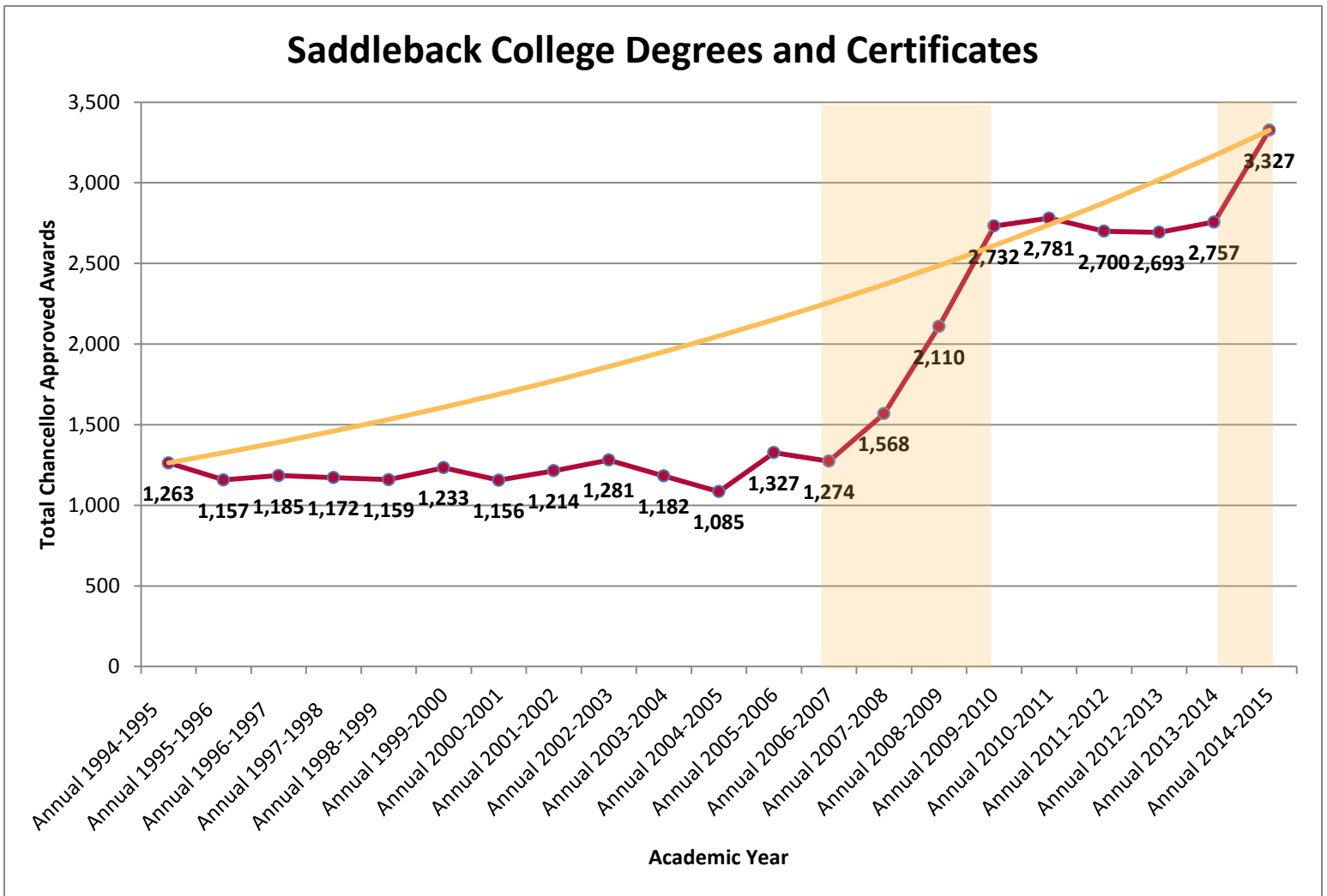
To use the previous example, calculating the compound annual growth rate for change in awards conferred at Saddleback College from 1994/1995 (1,263 awards) to 2014/2015 (3,327 awards), a period of twenty years, yields a GACR of 4.96%% /year (each year the previous year's value is multiplied by 1.0496 to reach an ending value of 3,327 after 20 years).

After examining the trend data, the Compound Annual Growth Rate model fit the data better than the Straight-Line Growth model and was therefore adopted for all analyses in this report.

Results:

Total Degrees and Certificates Awarded: Figure 1 shows the total number of awards (both degrees and certificates) conferred at Saddleback College beginning with the 1994/1995 academic year and ending with 2014/2015. The compound annual growth rate (4.96%) is also shown.

Figure 1



The shaded areas reflect periods of rapid increase in the number of awards.

Figure 2 shows the enrollment during the periods of rapid increase, testing the hypothesis that increased enrollment accounts for the increase in number of awards. The increase in awards appears to be correlated with an increase in enrollment during the initial period of rapid increase from 2006/2007 to 2009/2010. However, the increase in awards did not appear to be correlated with an increase in enrollment from 2013/2014 to 2014/2015. The trend in enrollment only partially accounts for the increase in the number of awards, particularly in the period from 2012/2013 through 2014/2015 when the number of awards increased while enrollment decreased. Even during the period of increasing enrollment from 2006/2007 to 2009/2010, the rate of increase in awards (CAGR = 28.95%) outpaced enrollment (CAGR = 6.07%) .

Note that the number of awards and enrollment are plotted on two different axes. The axes are scaled such that doubling the number of awards and doubling the enrollment will appear to be visually equivalent.

Figure 2

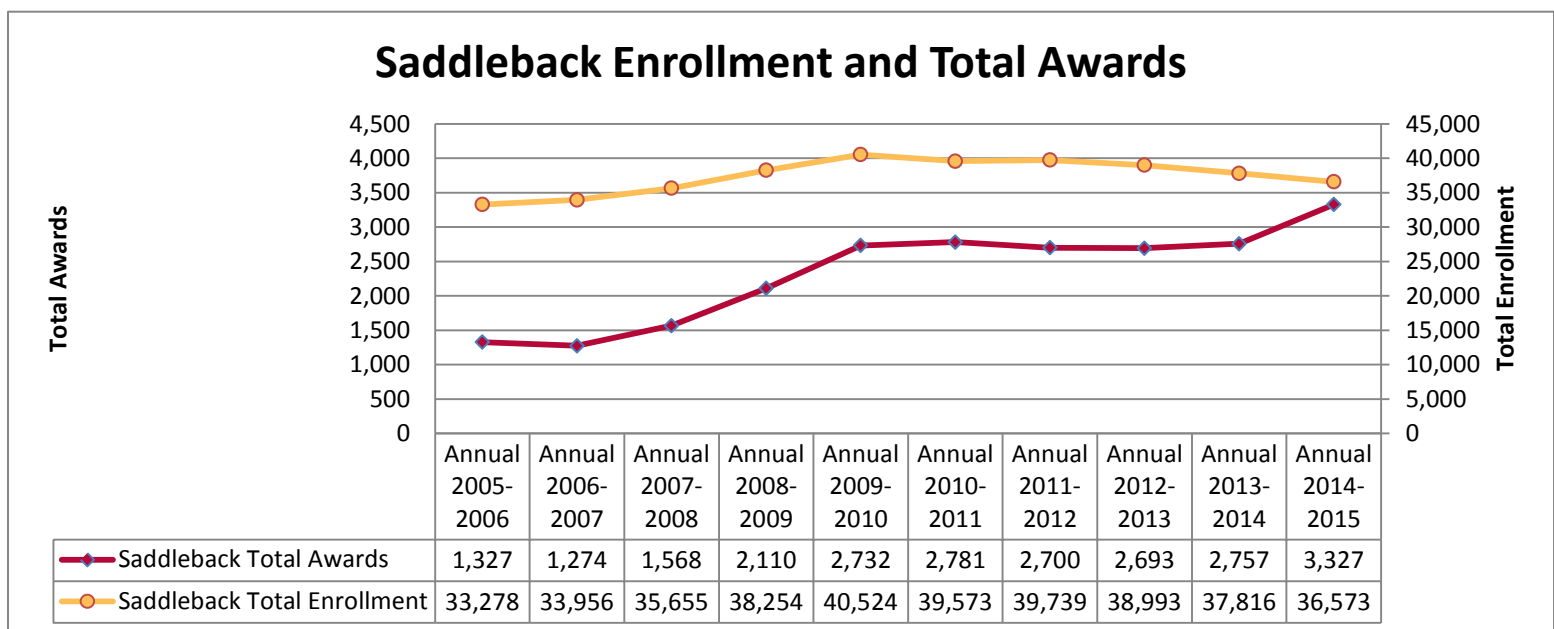
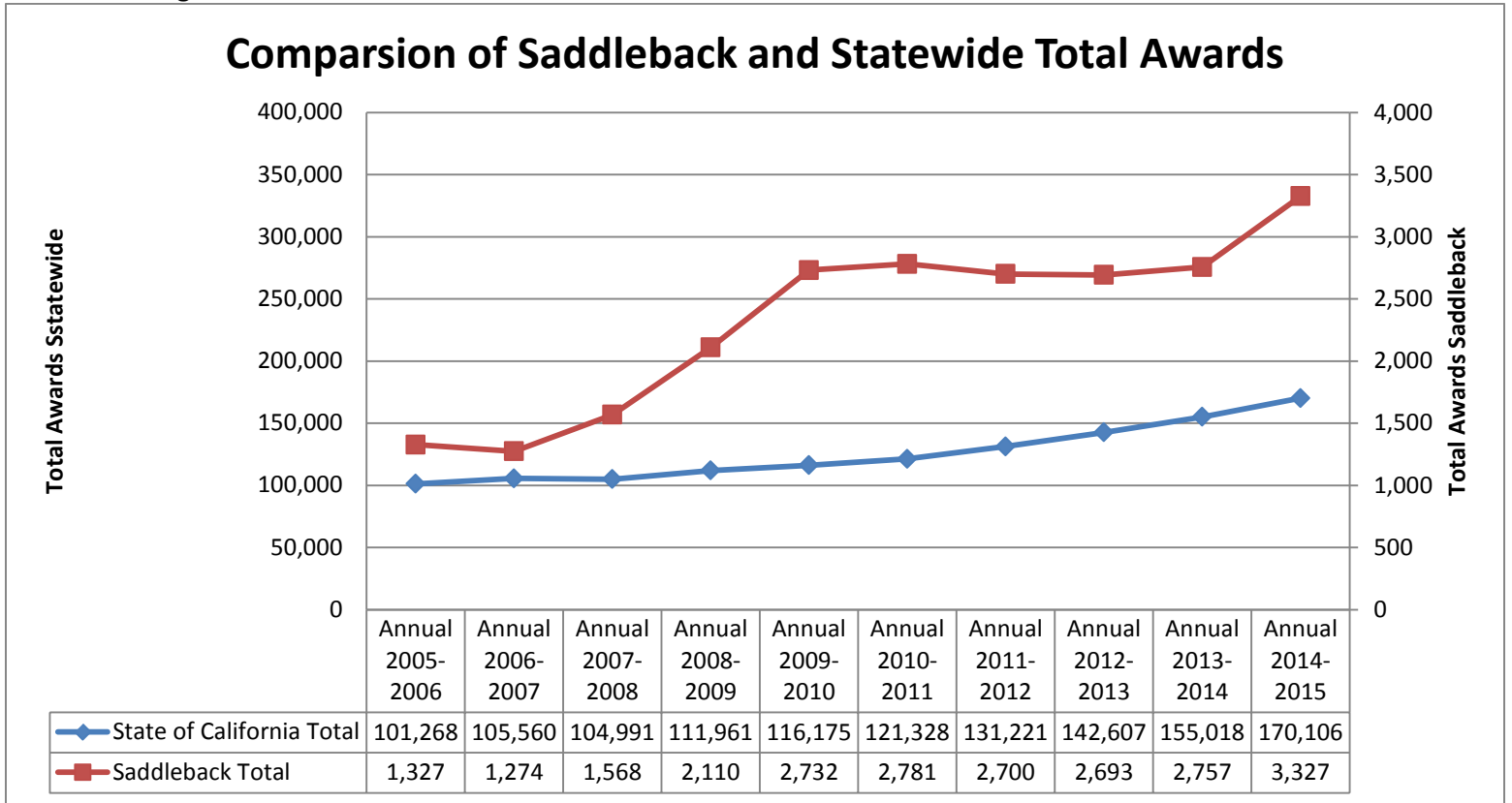


Figure 3 compares the rate of increase in the number of awards conferred statewide to the number of awards conferred at Saddleback College.

Figure 3



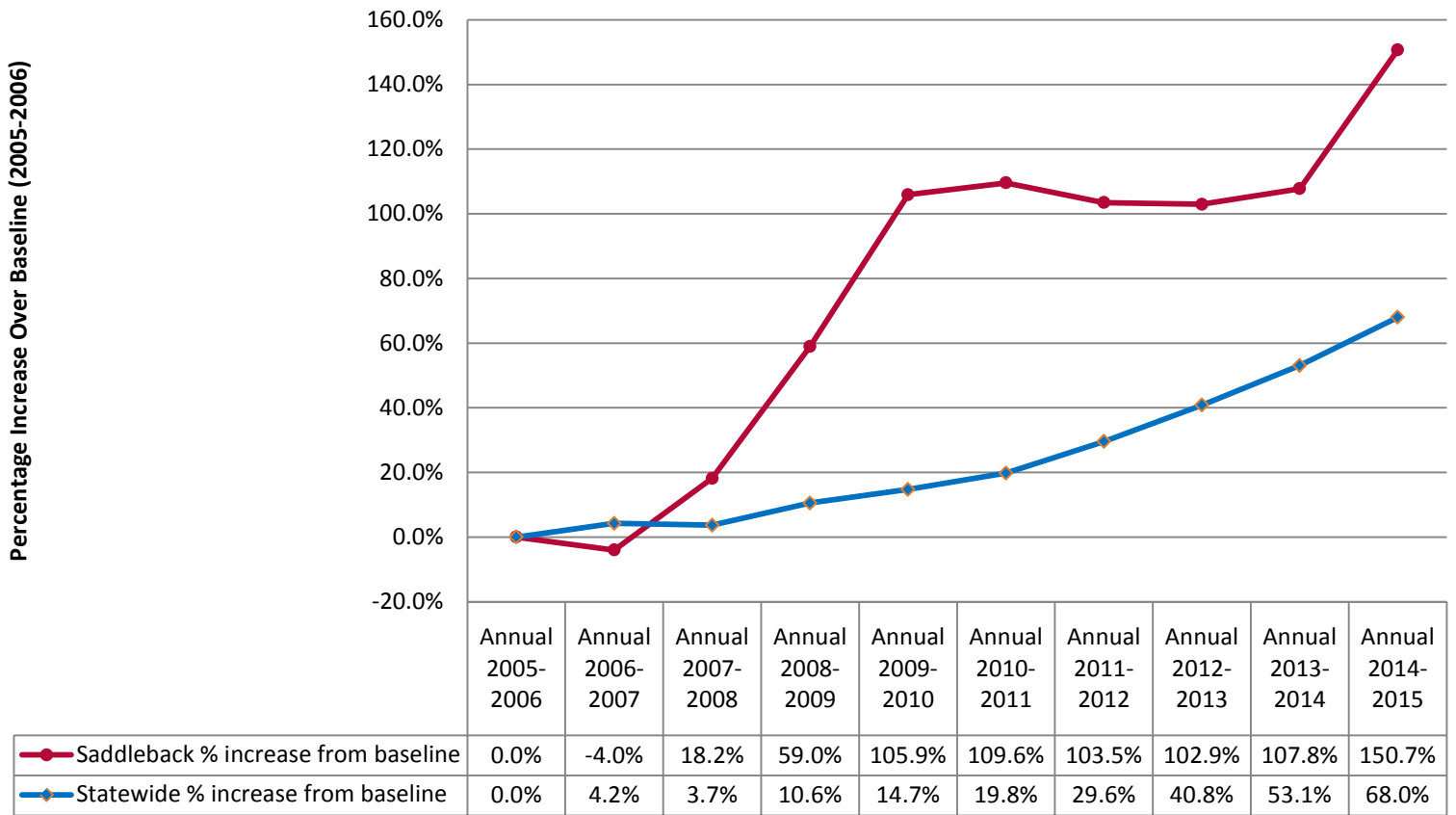
Note that the number of awards conferred statewide and the number of awards conferred at Saddleback College are plotted on two different axes. The axes are scaled such that doubling the number of awards statewide and doubling the number of awards at Saddleback College will appear to be visually equivalent.

The number of awards conferred at Saddleback College more than doubled from 1,327 in 2005/2006 to 3,327 in 2015/2015, CAGR = 9.63%. The number of awards conferred statewide showed a lower rate of increase, rising from 101,268 in 2005/2006 to 170,106 in 2015/2015, CAGR = 5.32%.

Figure 4 is another way of depicting the comparison in the rate of increase. In this figure the change in the number of awards conferred statewide and the number of awards conferred at Saddleback is expressed as the percentage of change from the baseline academic year 2005/2006.

Figure 4

Percentage Increase in Number of Awards Over Baseline (2005-2006)

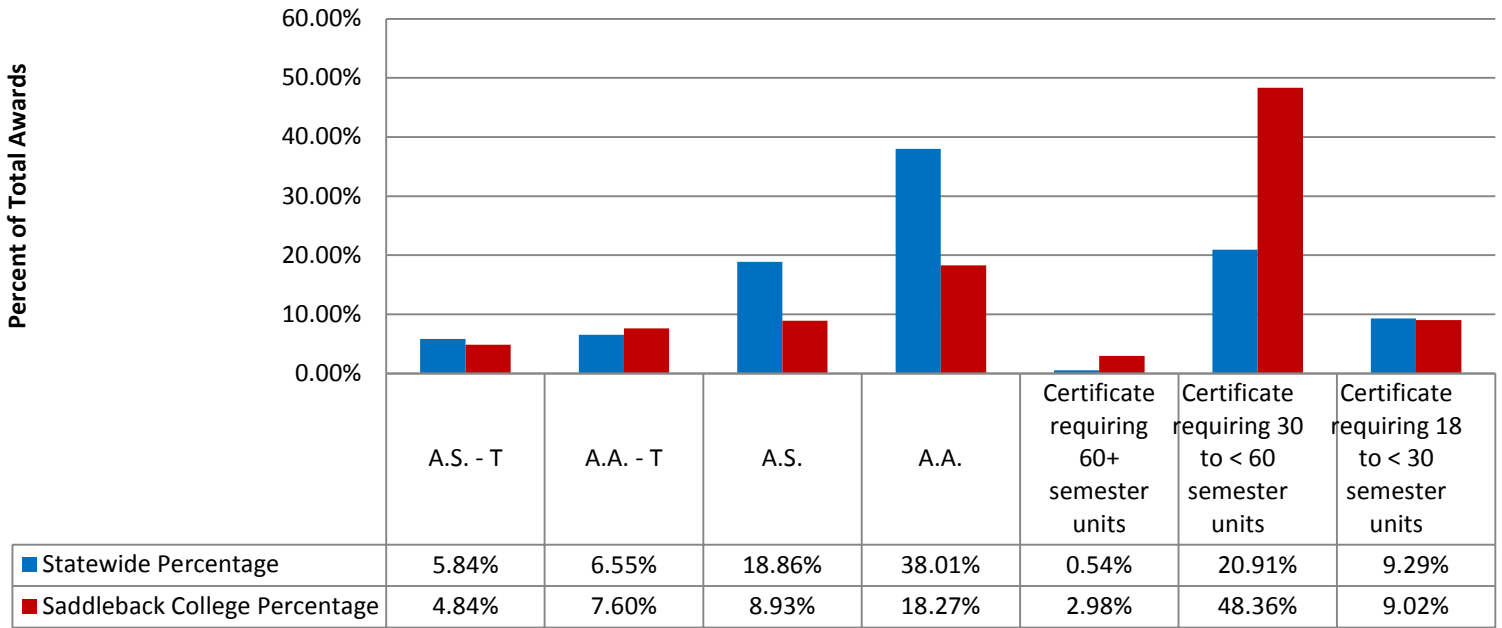


The data indicates that the percentage of change from baseline was greater for Saddleback College than the percentage of change from baseline statewide, even accounting for the negative percentage of change at Saddleback College during the 2006/2007 academic year.

Type of Award: Figure 5 compares the types of awards as a percentage of the total number of awards conferred statewide during 2014/2015 to the types of awards conferred at Saddleback College during the same academic year.

Figure 5

Comparison of Saddleback College and Statewide Award Type as Percentage of Total Awards (2014/2015)



The data indicate that Saddleback College confers more Certificates requiring 30 to less than 60 semester units as a percentage of total awards (48.36%) than the statewide percentage (20.91%). The data further indicate that Saddleback College confers fewer A.S. and A.A. degrees as a percentage of total awards (8.93% and 18.27% respectively) than the statewide percentage (18.86% and 38.01% respectively).

Figure 6 shows the awards conferred at Saddleback College in the 2014/2015 academic year disaggregated by either degree or certificate.

Figure 6

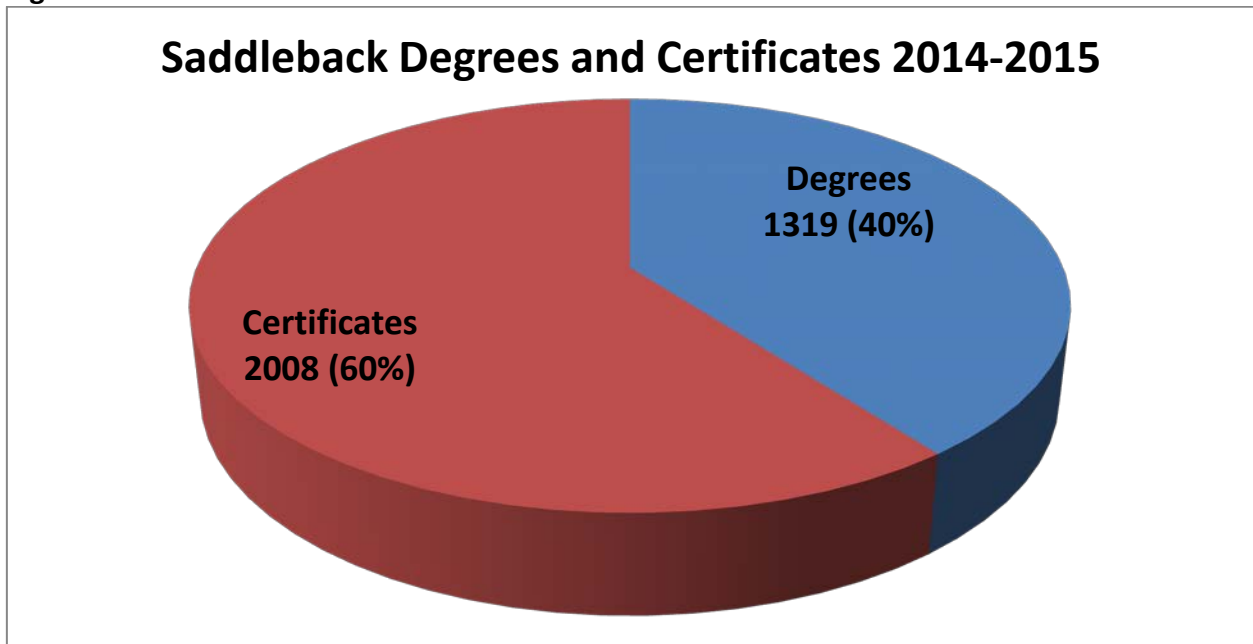


Figure 7 shows further disaggregation into types of degrees and certificates.

Figure 7

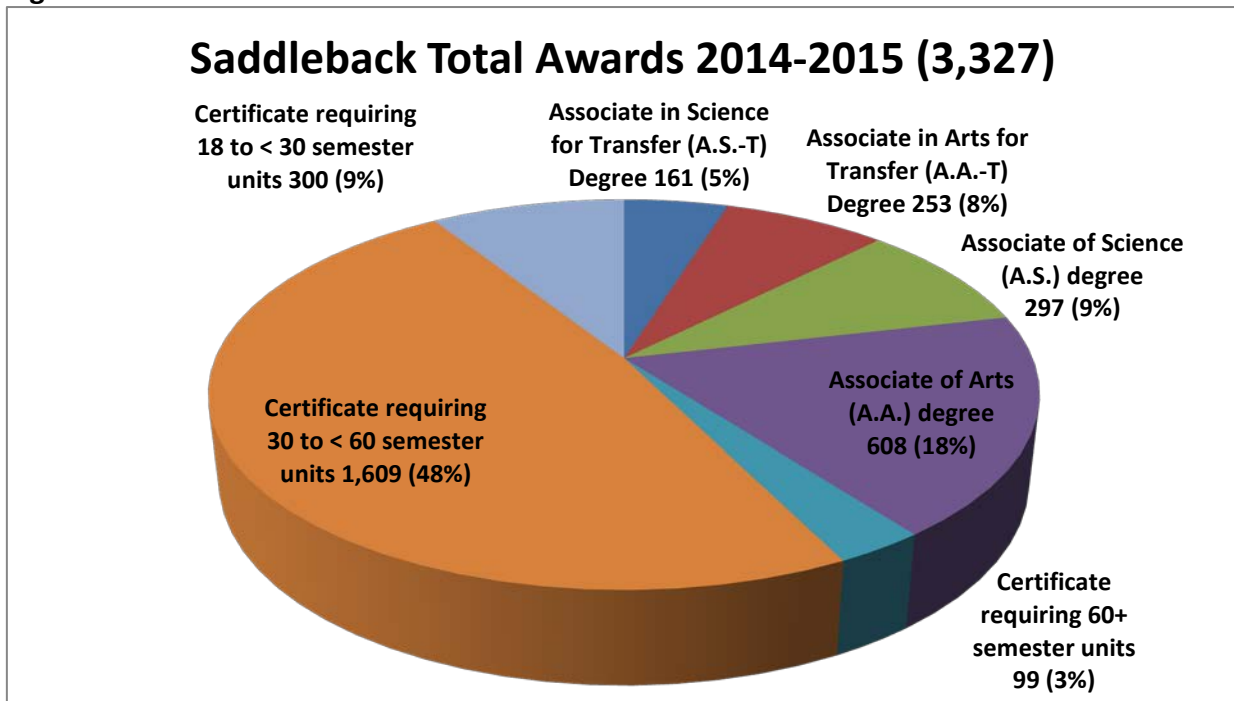


Figure 8 shows the disaggregation of degrees by type.

Figure 8

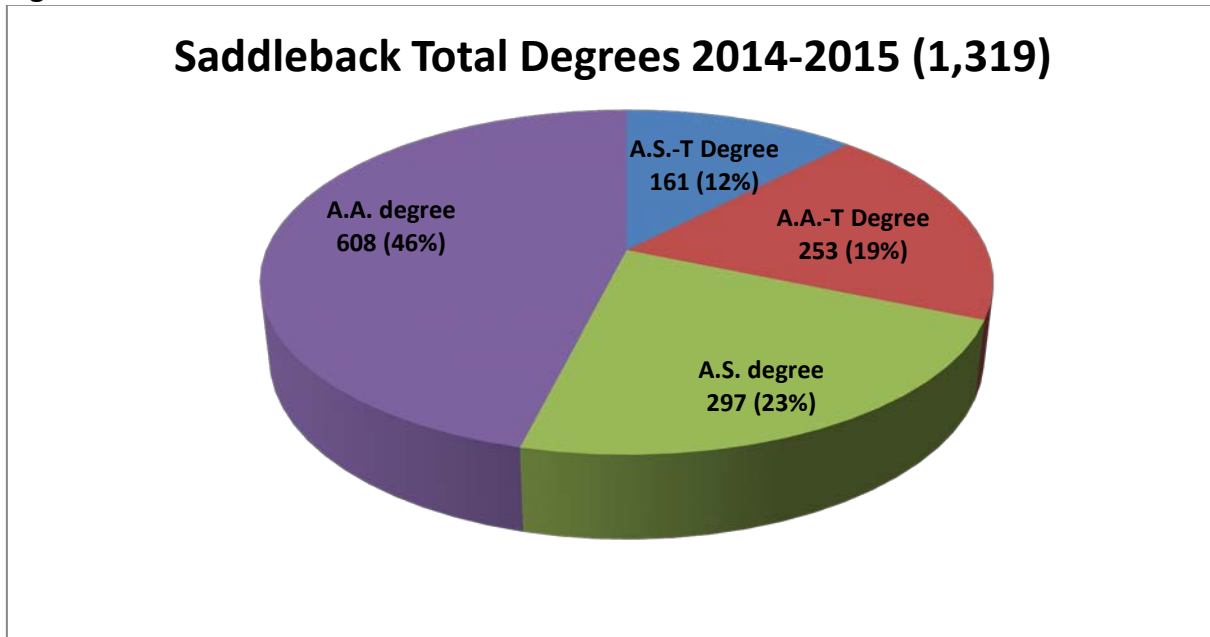


Figure 9 shows the disaggregation of certificates by type.

Figure 9

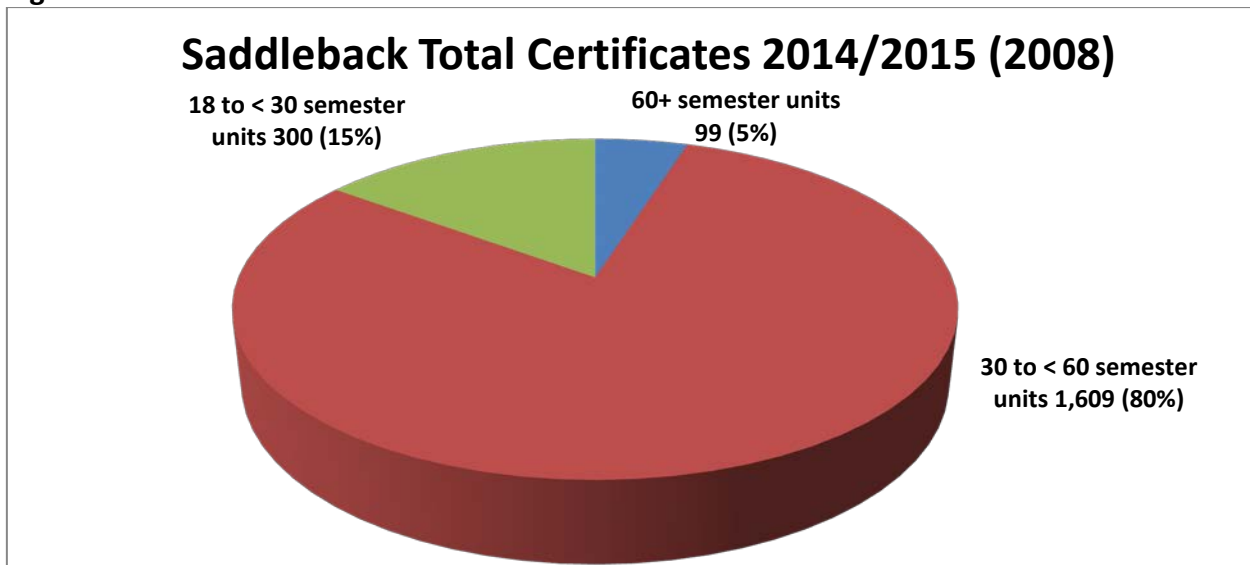
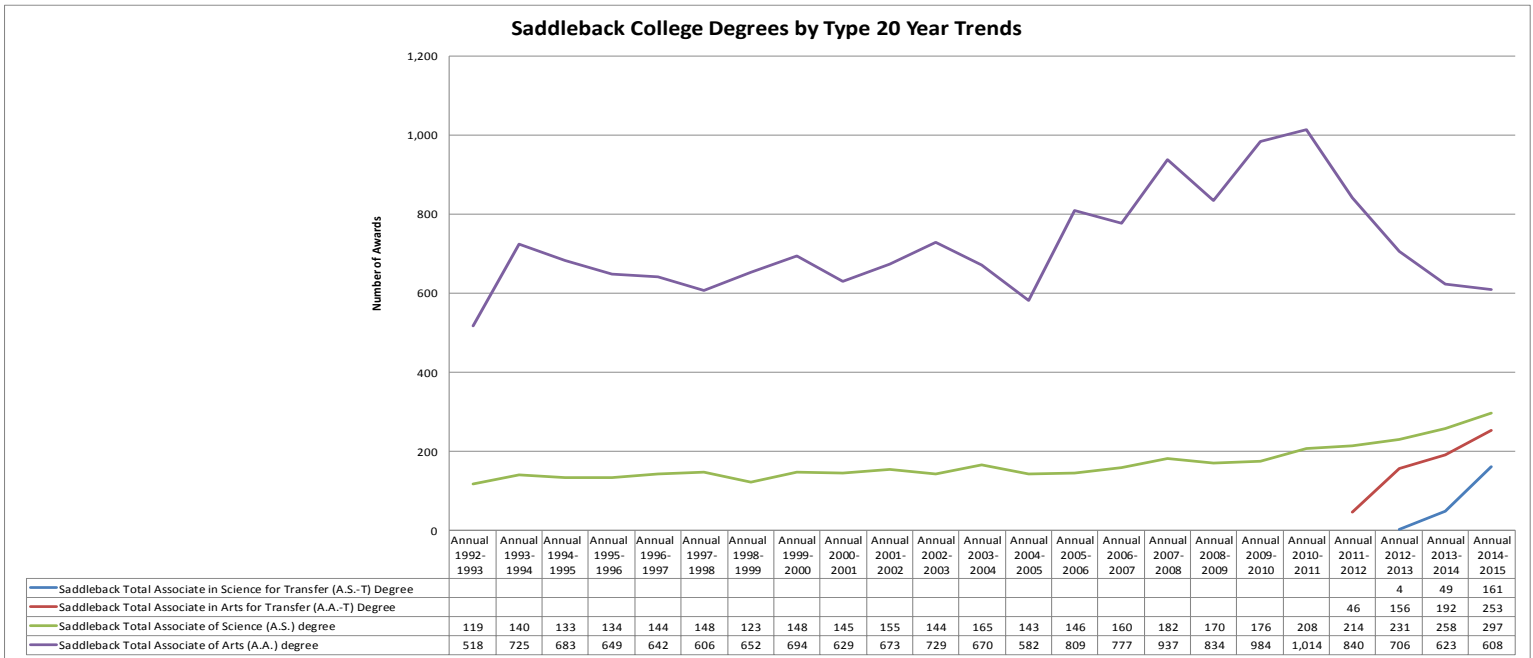


Figure 10 depicts twenty year trends in the number of degrees awarded at Saddleback College by degree type.

Figure 10



A long-term comparison can be drawn between the number of A.A. degrees and the number of A.S. degrees since both have been conferred since 1992/1993. The rate of increase in the number of A.S. degrees (CAGR = 4.06%) is greater than the rate of increase in the number of A.A. degrees (CAGR = 0.70%). The greater absolute numbers and volatility in the number of A.A. degrees masks the overall trend.

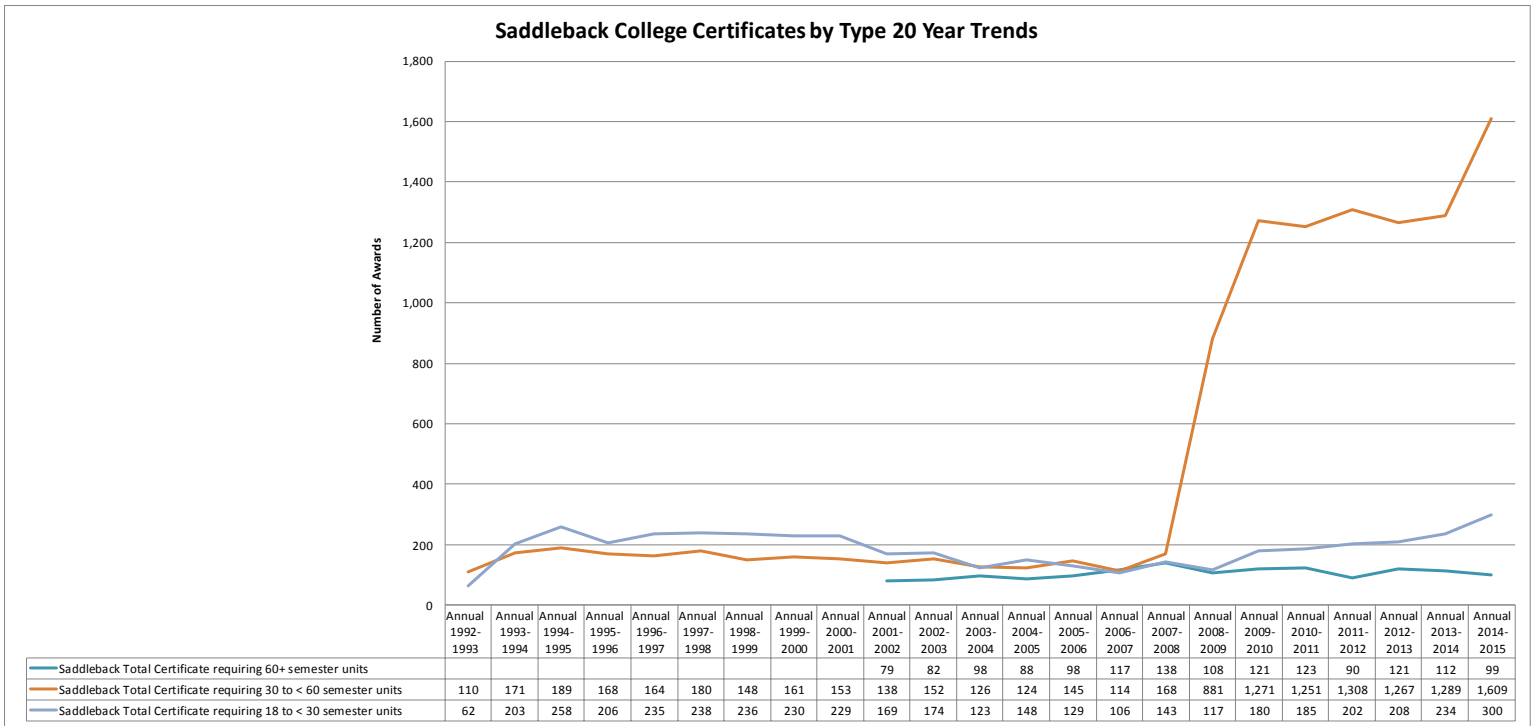
Comparisons with the A.A. – T and the A.S. – T are necessarily shorter-term.

When the last four years are compared, the rate of increase in the number of A.A.- T degrees (CAGR = 53.14%) outpaced the the rate of increase in the number of A.S. degrees (CAGR = 8.54%) and the rate of increase in the number of A.A. degrees (CAGR = -7.76%).

When only the last three years are compared, the rate of increase in the number of A.S.- T degrees (CAGR = 242.71%) far exceeded the rate of increase in th enumber of A.A.- T degrees (CAGR = 17.49%) outpaced the the rate of increase in the number of A.S. degrees (CAGR = 8.74%) and the rate of increase in the number of A.A. degrees (CAGR = -4.86%).

Figure 11 depicts twenty year trends in the number of certificates awarded at Saddleback College by certificate type.

Figure 11

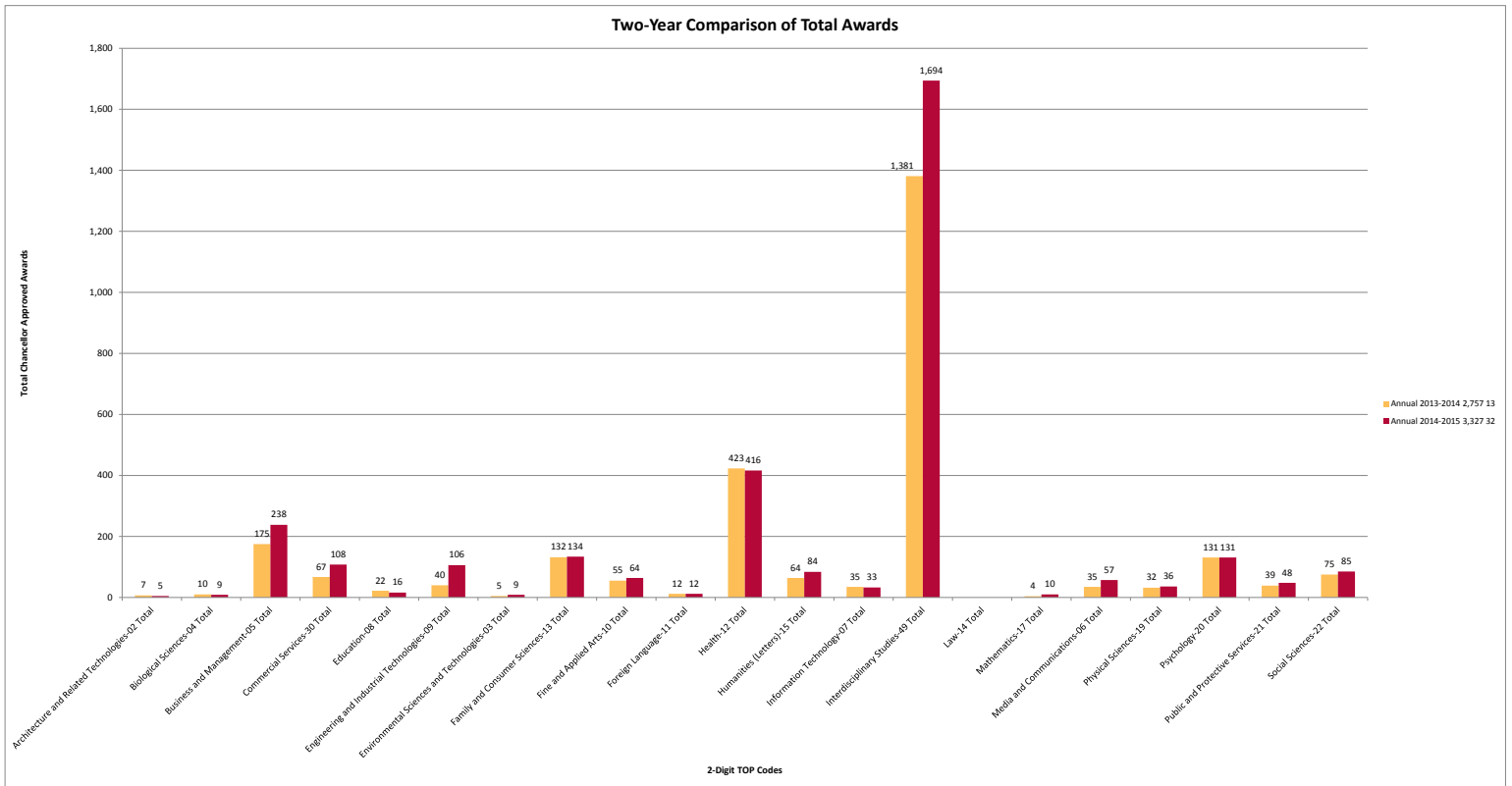


A long-term comparison can be drawn between the number of certificates requiring 30 but less than 60 semester units and the number of certificates requiring 18 but less than 30 semester units since both have been conferred since 1992/1993. The rate of increase in the number of certificates requiring 30 but less than 60 semester units (CAGR = 12.37%) is greater than the rate of increase in of certificates requiring 18 but less than 30 semester units (CAGR = 7.10%). The volatility in the number of certificates requiring 30 but less than 60 semester units may be attributable to the introduction of the IGETC and CSU-GE certificates.

Certificates requiring more than 60 semester units were not conferred at Saddleback College until 2001/2002 and the number of these awards has remained steady ranging from 79 in 2001/2002 to a high of 138 in 2007/2008 before declining to 99 in 2014/2015 (CAGR = 1.63%).

Type of Award by Program: Figure 12 compares the total awards conferred in 2013/2014 and 2014/2015 across programs identified by two-digit TOP codes at Saddleback College.

Figure 12



Saddleback College conferred the most awards of all types in the Interdisciplinary Studies program in both 2013/2014 (1,381) and 2014/2015 (1,694). Table 1 presents the top five programs in terms of the number of awards.

Table 1

Program	2013/2014	2014/2015
Interdisciplinary Studies	1,381	1,694
Health	423	416
Business and Management	175	238
Family and Consumer Sciences	132	134
Psychology	131	131

Table 2 presents the top six programs in terms of growth in terms of the number of awards from 2013/2014 to 2014/2015.

Table 2

Program	Growth in Number of Awards
Interdisciplinary Studies	313
Engineering and Industrial Technologies	66
Business and Management	63
Media and Communications	22
Humanities (Letters)	20
Agriculture and Natural Resources	19

Figure 13 focuses on the Interdisciplinary Studies program and shows the type of degree or certificate conferred over the period from 1994/1995 to 2014/2015.

Figure 13

