

# Saddleback College Success Rates for Basic Skills English, Basic Skills Math, and ESL Cohorts

Trends Over Five Cohorts Comparisons to Statewide Performance

> S. Dean Crews Date Created: 10/11/2016

#### **Executive Summary**

### Purpose and Scope:

- This report assesses success related to the Basic Skills Math and English and ESL cohorts based on five cohorts. The analysis follows each cohort for six years examining whether the goal was met within that period.
- 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:
  - The report covers only those students who met qualifications for membership in the various cohorts.
  - The report covers only certain specific outcomes.
  - The analysis is based on data publicly available on the State Chancellor's office Data Mart.
  - Short-term trend analysis demands a considered approach.

# Key Findings:

- Saddleback College continues to exceed statewide performance in English and Math, but lags behind in ESL.
- Trends are declining for Saddleback College performance in all areas.
- The trend in performance for English has shown a slight rebound from 2008-2009 to 2009-2010.

#### Introduction

The Scorecard was developed in 2012 and is the current accountability framework for all 113 California Community Colleges (CCC). The purpose of the Scorecard is to provide stakeholders with clear and concise information about student progress and success. The core of the framework is a series of college level measures. These measures reflect the breadth and scope of community colleges diverse missions and provide a standardized view of each college's performance across areas.

This report will examine three Scorecard groups; Basic Skills Math, Basic Skills English, and ESL. Each group is organized into well-defined cohorts, using specific outcomes, and tracks students for a specified period. Saddleback College data will be compared to statewide averages for each group.

Beyond the data reported in the Scorecard, additional data regarding these groups is reported by the California Community College Chancellors Office in the Basic Skills Progress Tracker accessed through the DataMart. The Basic Skills Progress Tracker (or Progress Tracker, for short) tracks cohorts of students in four general areas: English reading, English writing, ESL, and math. ESL may be subdivided into four related areas (integrated, reading, writing, & listening) depending on the curriculum of the college(s) included in the query. The Progress Tracker establishes term-based cohorts of students by looking at the term in which the student enrolled in their first basic skills course in the given subject area at the selected college (in the instant case, Saddleback College). Courses taken at other colleges are not evaluated. All students who first enrolled in a given basic skills subject area in the term selected will be included in the tracker. They need not be first time students in that term; they may be, but that is incidental.

The Progress Tracker does not allow for a comparison with statewide totals since statewide data is not reported.

# Groups

**Basic Skills English.** This Scorecard group is composed of credit students who attempted for the first time an English Writing course designated as **one to four levels below transfer** (the academic year of this attempt determines the cohort year), and additionally supply a valid social security number.

The Progress Tracker places a student in a cohort (by term as opposed to academic year) but imposes no requirement for a social security number. The Progress Tracker also tracks students disaggregated by the level below transfer at which they began.

The Progress Tracker provides data for English-Reading and English-Writing students. For the purpose of this report, the English-Writing data is utilized.

The removal of the requirement for a valid social security number for inclusion in the Progress Tracker cohort allows for a broader group of remedial English students.

**Basic Skills Math.** The Scorecard group is composed of credit students who attempted for the first time a Math course designated as **two to four levels below transfer** (the academic

year of this attempt determines the cohort year), and additionally supply a valid social security number.

The Progress Tracker places a student in a cohort (by term as opposed to academic year) but imposes no requirement for a social security number. The Progress Tracker also tracks students disaggregated by the level below transfer at which they began.

The inclusion of students who begin at one level below transfer and the removal of the requirement for a valid social security number for inclusion in the Progress Tracker cohort allows for a broader group of remedial Math students.

**ESL.** This Scorecard group is composed of credit students who attempted for the first time an ESL course designated as **any level below transfer** (the academic year of this attempt determines the cohort year), and additionally supply a valid social security number.

The Progress Tracker places a student in a cohort (by term as opposed to academic year) but imposes no requirement for a social security number. The Progress Tracker also tracks students disaggregated by the level below transfer at which they began.

The Progress Tracker provides data for ESL-Integrated, ESL-Listening, ESL-Reading, and ESL-Writing students. For the purpose of this report, the ESL-Integrated data is utilized.

The removal of the requirement for a valid social security number for inclusion in the Progress Tracker cohort allows for a broader group of remedial English students.

# **Success Outcomes**

**Basic Skills English.** This Scorecard group will be considered to have a successful outcome if they complete a transfer level English Writing course with a grade of "A", "B", "C", or "P", within six years.

The Progress Tracker provides disaggregated data by the term in which the successful course completion occurred for each term-based cohort.

**Basic Skills Math.** This Scorecard group will be considered to have a successful outcome if they complete a **transfer level** Math course **or** complete a Math course **one level below** transfer with a grade of "A", "B", "C", or "P", within six years.

The Progress Tracker provides disaggregated data related to the precise level of Math course successfully completed and by the term in which the successful course completion occurred for each term-based cohort.

**ESL.** This Scorecard group will be considered to have a successful outcome if they complete a transfer level ESL course **or** complete a transfer level English course with a grade of "A", "B", "C", or "P", within six years.

The Progress Tracker provides disaggregated data related to the precise level of ESL or English course successfully completed and by the term in which the successful course completion occurred for each term-based cohort.

#### Purpose

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

This report, at best, is based on an analysis of success by cohorts which is susceptible to a number of inescapable limitations.

- Scorecard cohorts do not include all of the students enrolled in Basic Skills Courses at Saddleback College. Students who choose not to supply social security numbers at enrollment are excluded.
- Cohorts, once established, can only decrease in size. The difficulty encountered in tracking students when they are no longer enrolling in classes at Saddleback College creates a completion cohort that can only decrease in size over the period of six years. The number of students counted as having a "successful outcome" does not include students who may have transferred to another institution where they were "successful". Since the outcome is reported as a percentage of the original cohort, when the numerator is decreased by attrition, the success percentage will be artificially decreased.
- This report covers only specific outcomes defined as measures of success. There are certainly many outcomes that students define as success. Some of the alternative success outcomes may, in fact, become part of the scorecard in the future.
- Some of the cohort data is incomplete. The number of students in the 2009-2010 Basic Skills Math cohort decreased by almost 50%.

Judgments about institutional success should not be based on the outcomes of a single cohort, or even a short-term trend. Bahr, Hom, & Perry (2005) suggest that at least three unique cohorts of the same type (e.g., Math cohorts from 2008-2009, 2009-2010, and 2010-2011) be observed before generating conclusions about a college because this reduces the possibility of identifying a college as 'low performing' based on random variation in the behavior of a single student cohort.

# **Scope of Report**

This report will examine one Scorecard metric as it relates to three groups of students: Basic Skills English; Basic Skills Math; and ESL. The success metric is calculated for well-defined cohorts, using specific outcomes, and tracks students for a specified period. Saddleback College data will be compared to statewide averages for each group of students. Other measures of success may soon be incorporated into the Scorecard, but they are not the focus of this report.

Many individually or societally beneficial outcomes are not discussed in this report.

#### 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 for five cohorts was first extracted on a statewide basis for each of the groups. The five-year statewide data covers cohorts from 2005-2006 (completion in 2010-2011) to 2009-2010 (completion in 2014-2015). The five-year data for Saddleback College covers cohorts from 2005-2006 (completion in 2010-2011) to 2009-2010 (completion in 2014-2015). Five cohorts meet the criteria of comparison over at least three cohorts (Bahr, Hom, & Perry, 2005).

At the second step, data for five cohorts was extracted for Saddleback College for each of the groups.

Data was exported to SPSS or Excel in order to facilitate analysis and reporting of results.

Disaggregation by gender, economic status, DSPS status, or ethnicity was only undertaken in those cases where such disaggregation did not produce less than ten individuals in a particular cell. In some instances (e.g. individuals in the American Indian/Alaska Native ethnicity group) no individuals from a particular ethnic group were found who met the requirements for inclusion in a particular cohort, consequently these cells are empty. In other instances, the number of individuals in a particular cell was less than ten, and in these cases, in order to prevent the identification of individuals, the cells are also left empty.

Charts were prepared to visually present the data to enhance understandability using the charting features of Microsoft Excel and/or SPSS. As appropriate, linear trendlines were added to graphs and charts using the trendline function in Microsoft Excel or SPSS.

#### Using Cohorts to Measure Progress and Completion

A cohort is a group of individuals with similar characteristics. A key to successful cohort analysis is defining cohorts that accurately capture the population of interest. The cohorts in this analysis are comprised of students who enter a college, program, or a series of courses during the same academic year. Analyzing students by cohorts allows researchers to follow the same individuals over time in order to isolate the impact of various treatments (e.g. enrollment at a specific college or in a specific program) from other factors that might influence outcomes. In studies that use different students at each time point, instead of a cohort, a change in outcomes could reflect the impact of a change in the sample rather than the treatment of interest.

The California Community Colleges Chancellor's Office (CCCCO) began using cohorts as a basis of measurement in limited circumstances as early as 2002. In 2004, the Accountability Reporting for the Community Colleges (ARCC) came into use as a result of Assembly Bill 1417.

The original ARCC metrics had smaller cohorts than the Scorecard because there was a higher threshold for inclusion in a cohort.

# **General Comments about Cohort Size and Composition**

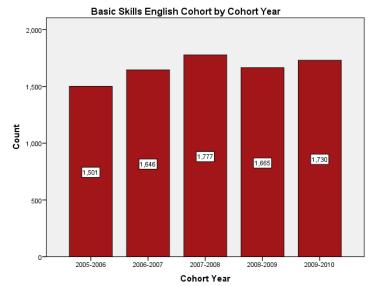
The size of each cohort relative to the number of enrolled students for each academic year appears small, but each criterion for inclusion is necessary to create accurate cohorts. That being said, it is important to note that, over time, a large number of students enrolled in a particular academic year, e.g. 2008-2009, are incorporated into some cohort even if that cohort is not included in the 2015 Scorecard. While a small percentage of those students were included in a completion, remedial, or CTE cohort and were used in the calculation of the 2015 Scorecard metrics (21.5%), many of those excluded are contained within other cohorts and, therefore, other Scorecards. A full 47.4% were placed in a cohort between the 2004-2005 and 2008-2009 academic years and are included in one of the first five Scorecards (2011 through 2015). We should expect that as the number of Scorecards grows the higher a percentage of students will be represented from any given academic year.

Smaller analytic cohorts in the Scorecard are caused by two distinct, nevertheless related, considerations. First, behavioral indicators are relied upon to identify goals because of the lack of reliable data from students regarding educational goals. Second, the varied missions of the system result in a large number of unique student goals. The large number of system missions also may produce students with multiple goals or may lead them to change goals during their career. These students may or may not fall into any outcome cohorts.

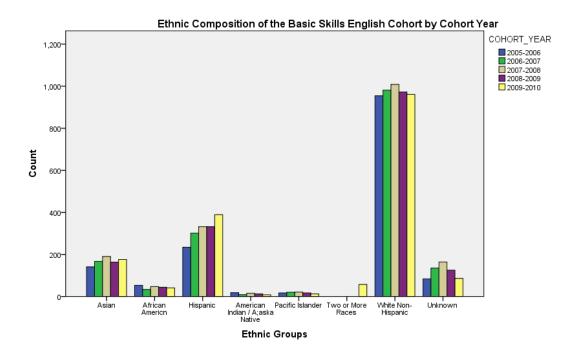
# **Cohort Demographics and Completion Rate Results**

# **Basic Skills English**

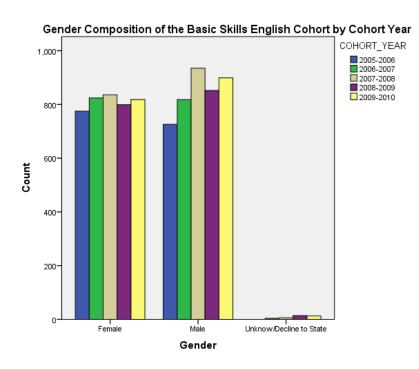
The size of the cohort has remained relatively consistent, ranging from 1,777 students in 2007-2008 to 1,501 in 2005-2006, and the latest cohort stands at 1,750 students.



The fastest growing ethnic group in the cohort is the Hispanic group, in the latest cohort, this group accounted for 22.5% of the total cohort, or 389 students.

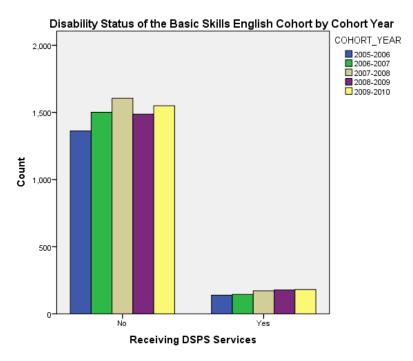


In the most recent cohort years, males are more numerous than females, unlike the campus community as a whole.

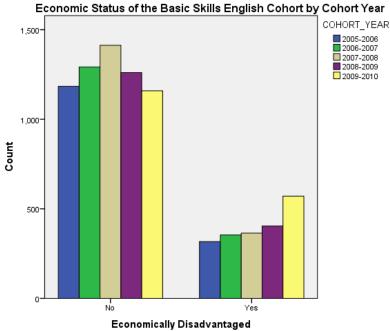


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The number of students receiving DSPS services is increasing, but they continue to account for a small percentage of the cohort (10.5% of the latest cohort).

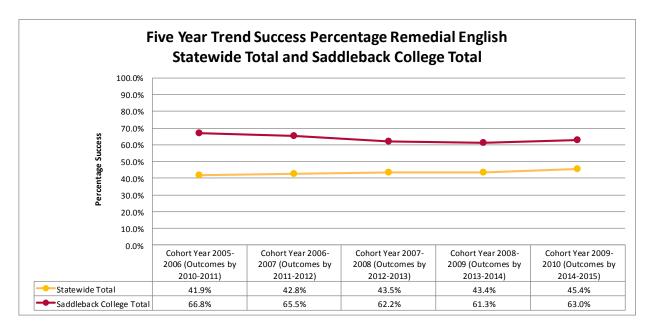


The number of students who are characterized as economically disadvantaged is increasing, accounting for 33% of the latest cohort.



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The success rate for Basic Skills English students at Saddleback College exceeds the statewide rate across all five cohort years examined. The rate at Saddleback College declined from 66.8% in 2005-2006 to 61.3% in 2008-2009 before rebounding to 63% in 2009-2010. The statewide rate has shown steady increases over that time. The statewide increase of 3.5% is contrasted with the Saddleback College decrease of 3.8% over the five cohorts years.

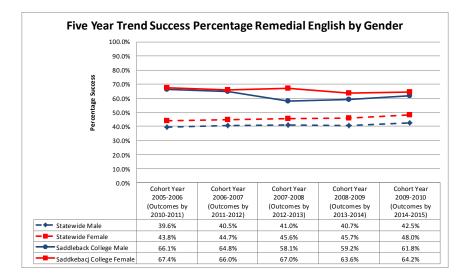


All ethnic groups at Saddleback College having sufficient numbers to be included in this analysis exceeded the statewide success rate. The success rate for African American students at Saddleback College showed the greatest variability year over year, probably due to the small number of African American students in any cohort. All ethnic groups with the exception of African Americans showed a 2009-2010 cohort success rate lower than the 2005-2006 cohort success rate. All ethnic groups, with the exception of Asians, rebounded to higher success rates year over year for the 2009-2010 cohort year.

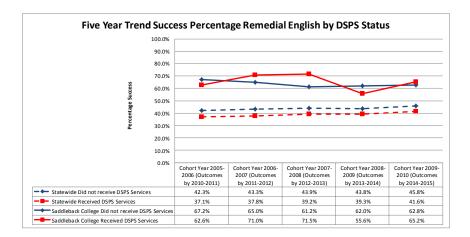
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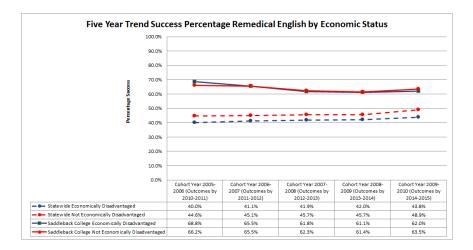
Females enjoyed a higher success rate than males for all five cohort years.



The high variability in the success rate for Saddleback College students receiving DSPS services, ranging from a high of 71.5% in 2007-2008 to a low of 55.6% in 2008-2009, is probably due to the small number of students in the group.

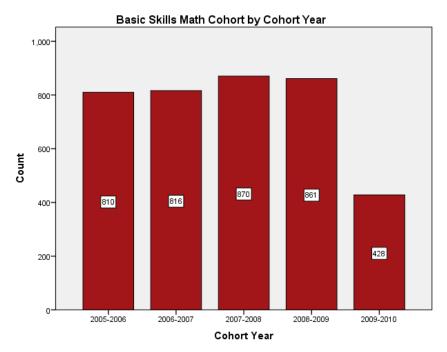


Economically disadvantaged students at Saddleback College enjoy a higher success rate than the statewide success rate. The success rate for the economically disadvantaged students has declined over the five cohort years matching the overall success rate. The highest rate was in the 2005-2006 cohort year reaching 68.8% and the lowest rate was in 2008-2009 (61.1%) and has shown a slight rebound in 2009-2010 to 62%.

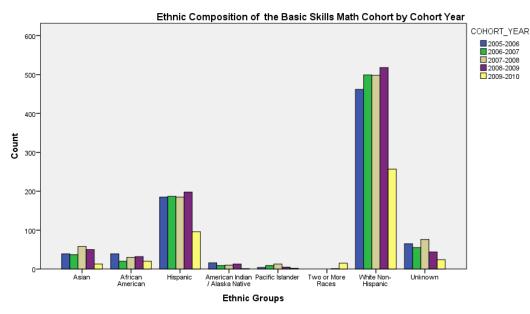


#### **Basic Skills Math**

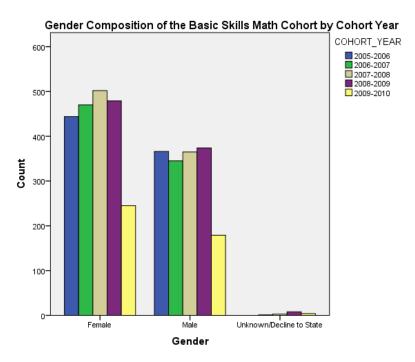
The basic skills math cohort for the 2009-2010 cohort year only included students from the Fall semester. The inaccurate reporting of the data to the California Community Colleges Chancellor's Office will be rectified through the resubmission of data. Notwithstanding the inclusion of only part of the cohort, the trends when expressed as a percentage of the cohort can still be included in this report (the percentage does not change substantially when the entire cohort is considered). Corrected figures will be included in future reports.



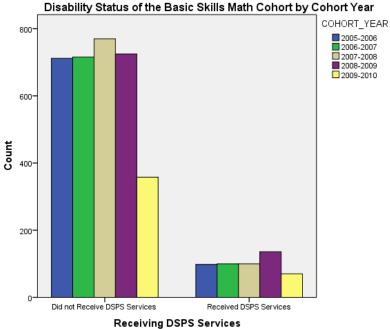
The African American group at first decreased and then increased as a percentage of the cohort from 4.8% in 2005-2006 to 2.5% in 2006-2007 and has steadily increased to 4.7% in 2009-2010. Other groups have remained relatively stable.



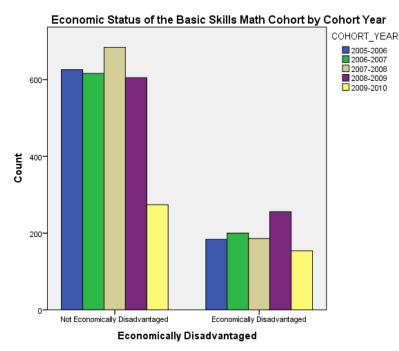
Females outnumber males in all cohort years.



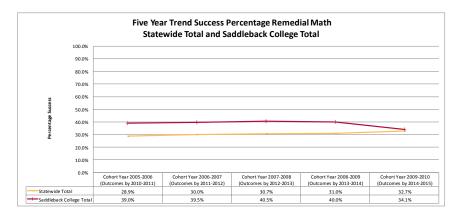
The percentage of students receiving DSPS services has remained stable, averaging about 20% of each cohort.



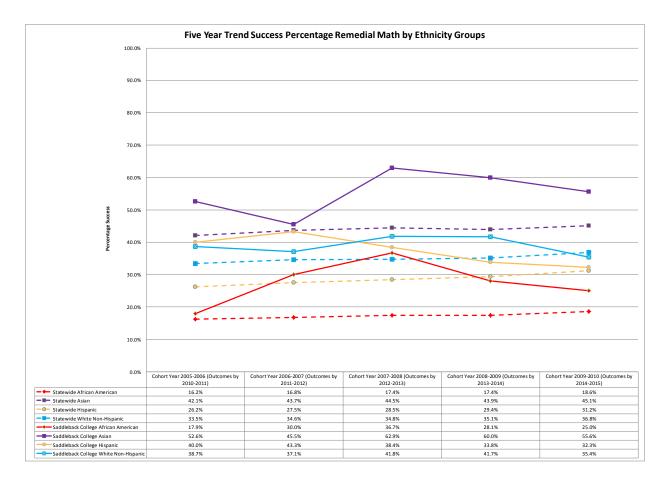
The percentage of students characterized as economically disadvantaged increased from 22.7% in 2005-2006 to 36% in 2009-2010.



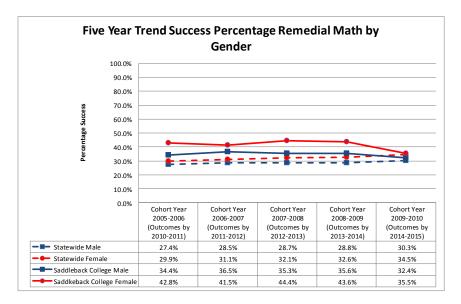
The trend remained relatively flat for the success rate of basic skills math students at Saddleback College at between 39% and 40%, showing a decline in 2009-2010 to 32.7%. For all cohort years the Saddleback College success rate exceeded the statewide average.

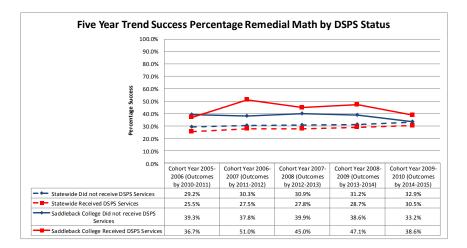


With the exception of the White, Non-Hispanic group, all ethnic groups consistently exceeded statewide success rates for all five cohorts. For all ethnic groups the success rate declined year over year in 2009-2010, with the longest consistent decline for the Hispanic group.

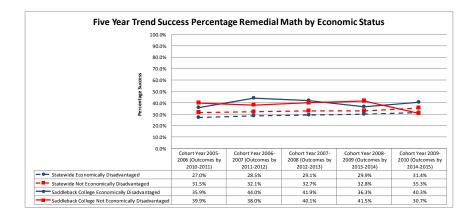


Females outperformed males with the gap closing in 2009-2010.

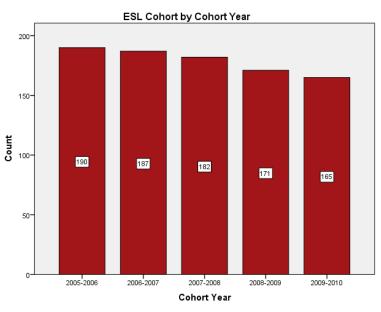




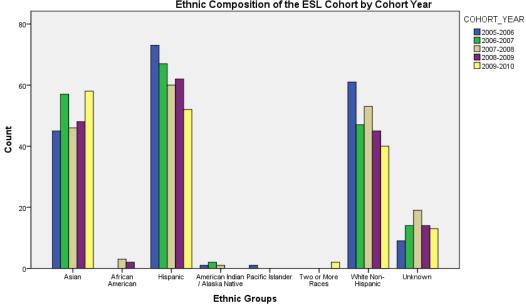
There is substantial variability in the success rates for students who are characterized as economically disadvantaged over the five cohort years.



The number of Saddleback College students included in the basic skills ESL cohort has steadily declined over the five cohort years from a high of 190 students to a low of 165.



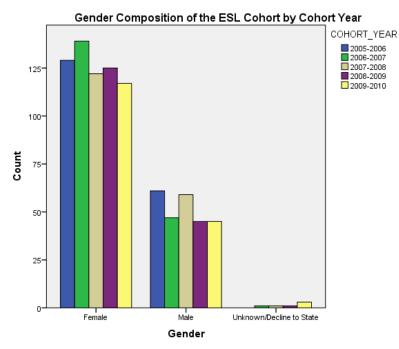
As a percentage of the ESL cohort the ethnicity groups have remained substantially unchanged.



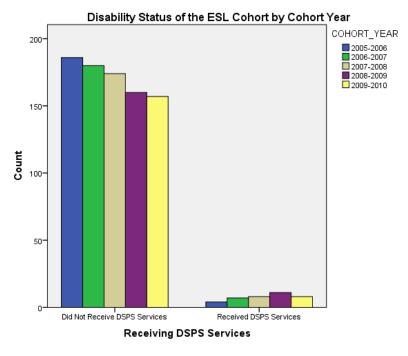


Gender composition of the ESL cohorts has remained consistent.

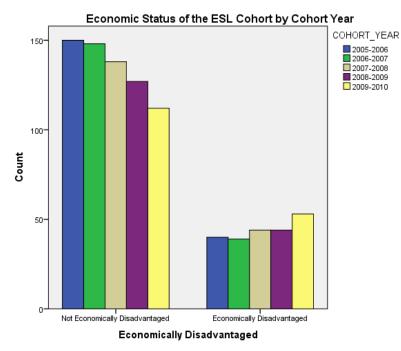
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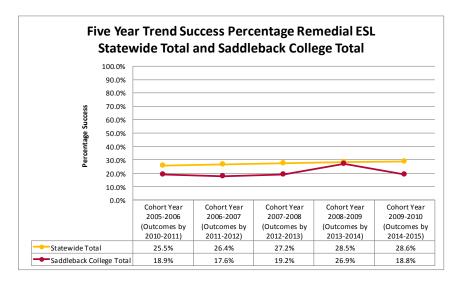
The percentage of Saddleback College ESL students receiving DSPS services has fluctuated but remained relatively unchanged ranging from 2.1% in 2005-2006 to 6.4% in 2008-2009.



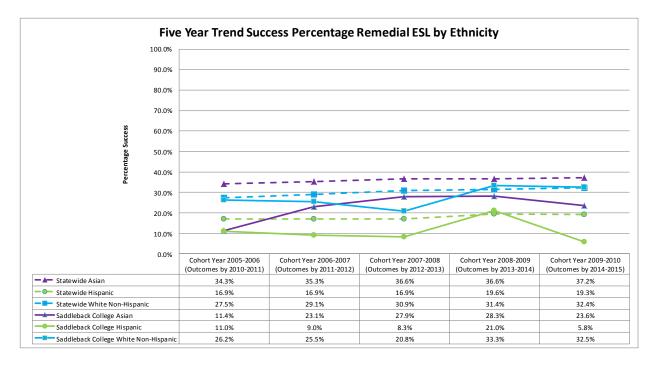
The percentage of the ESL cohort at Saddleback College who are characterized as economically disadvantaged rose from 21.1% in 2005-2006 to 32.1% in 2009-2010.



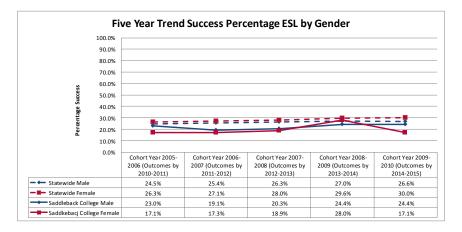
The success rate for basic skills ESL students at Saddleback College is below the statewide total success rate by 8 percentage points in the 2007-2008 and 9.8 percentage points in the 2009-2010 cohort years.



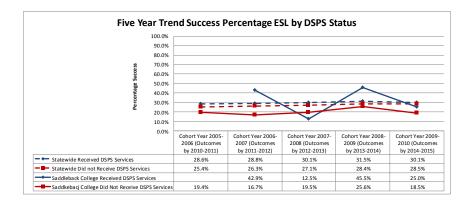
All ethnic groups included in the Saddleback College basic skills ESL cohort showed year over year declines from 2008-2009 to 2009-2010. The variability in year over year rates may be an artifact of low numbers in each ethnic group within the cohort.



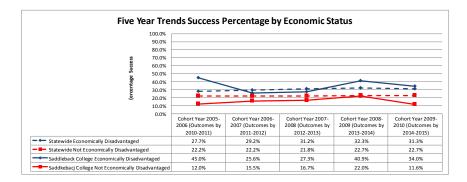
With the exception of the 2008-2009 cohort year males outperformed females in the Saddleback College basic skills ESL cohorts. Both genders underperformed statewide totals.



The very low numbers of students receiving DSPS services makes it difficult to draw valid conclusions about performance for this subgroup.



Saddleback College students who are characterized as economically disadvantaged outperformed students who are not economically disadvantaged, as was the case for statewide totals. In three of the five cohort years the students characterized as economically disadvantaged outperformed statewide totals.



**Basic Skills Progress Tracker Data** 

The Basic Skills Progress Tracker (or Progress Tracker, for short) tracks cohorts of students in four general areas: English reading, English writing, ESL, and math. ESL may be subdivided into four related areas (integrated, reading, writing, & listening) depending on the curriculum of the college(s) included in the query. The Progress Tracker establishes cohorts of students by looking at the first basic skills course ever taken by a student in a basic skills subject area.

In each basic skills area, English, Math, and ESL the performance of the Fall 2010 cohort will be examined. Completion (defined as a grade of "A", "B", "C", or "P") at various levels will be described. It must be remembered that the goal is not to pass an English class that is "two levels below transfer" even though it is laudable. The goal is to complete a transfer level class in English. For the Math cohort the goal is to complete a class at "one level below transfer" **or** a transfer level class.

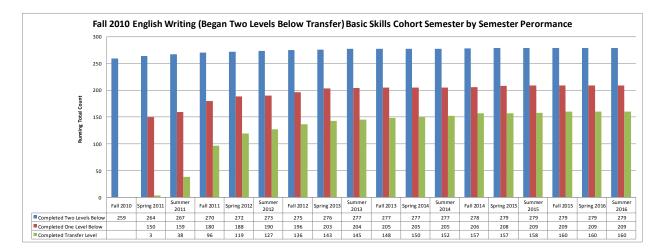
It appears that the opportunity to "re-take until you pass" a class does not greatly increase the number of successful completions after, at most, five terms (2 years). The number of attempts is tracked for the Math cohort and suggests that the same pattern obtains for other areas. After a very short window of time, students do not appear to even attempt to pass the "three levels below transfer" class.

Additional research may prove fruitful in understanding the longer term performance of these students.

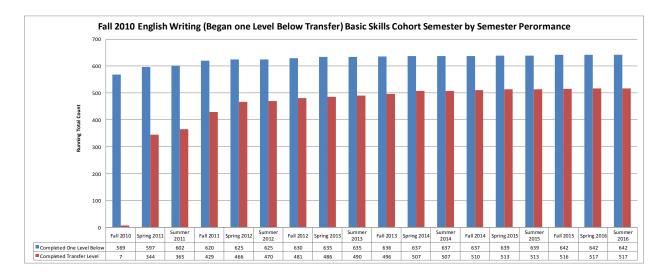
#### English

The Fall 2010 English Writing cohort that began at two levels below transfer contained 364 students. Of the 364 students who attempted a course two levels below transfer in Fall 2010, 264 completed with a grade of "A", "B", "C", or "P" (represented by the blue bar). At the end of the Spring 2011 semester, the number "of completers" rose to 264 (the total number of completers by semester is represented by the blue bar). At the end of the Summer, 2016 term the total number of successful completers of the two levels below class was 279.

Of the 259 students who completed the two levels below transfer class in Fall 2010, 150 completed one level below (represented by the red bar) and 3 (represented by the green bar) completed a transfer level course which is the goal. By the end of Summer 2016, 160 students had successfully completed a transfer level course, or 43.96% of the original cohort.



The Fall 2010 that began at one level below transfer included 726 students. Of this group 569 students completed the one level below course in Fall 2010 (represented by the blue bar), and 7 students completed a transfer level course (represented by the red bar). A total of 642 students eventually completed a one level below course, and 517 completed a transfer level course. This indicates that 71.2% accomplished the goal of completing a transfer level English course.



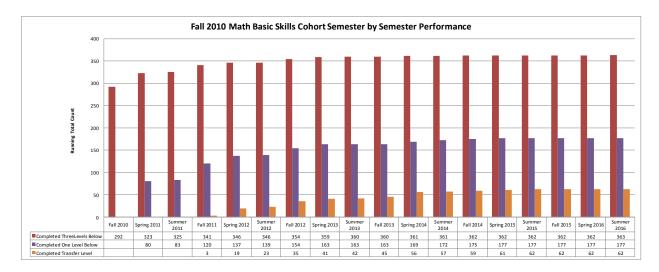
Overall, 413 Remedial English students did not successfully complete a transfer level English course in the five year period (209 who began one level below transfer and 204 who began at two levels below transfer).

#### Mathematics

The Math cohort that began at three levels below transfer included 512 students in Fall, 2010. Saddleback College does not offer courses at two levels below transfer. In Math the goal is to complete a one level below **or** a transfer level math course. 292 students successfully completed the three level below course in Fall 2010 (represented by the red bar), eventually rising to a total of 363 students in Summer, 2016. Passing the course at three levels below is only a "stepping stone" and not, by definition, the success goal.

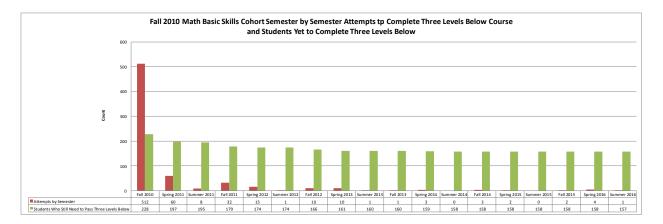
Of the 292 students who successfully completed the three levels below transfer class, 177 went on to complete a one level below transfer course (represented by the blue bars) and thus met the standard for success.

Of the 177 students who successfully completed the one level below transfer course, 62 went on to complete a transfer level course (represented by the orange bar).



This indicates that 34.6% of the Fall 2010 cohort met criteria for success in Math. Only 12.1% of the cohort completed a transfer level course.

The following chart tracks the course taking activity of the students who began at three levels below transfer in the Fall of 2010. The green bars represent those students yet to successfully complete a course at three levels below. The red bars represent the number of attempts to pass a course at three levels below (Note that in Fall 2010 there were 512 attempts because by definition this attempt placed a student in the relevant cohort). Of the 228 students who did not successfully complete the course in Fall 2010 (represented by the green bars), only 60 attempted the course in the Spring of 2011. 31 of these resulted in success, leaving 197 students yet to complete. The number of attempts drops rapidly following the Fall 2011 semester while the number of students yet to complete remains at around 170.



The Fall 2010 Integrated ESL cohort included only 12 students. The tracker data is, at best, of very limited internal validity, and is included in this report only for reference purposes.

