INTRODUCTION

College of San Mateo (CSM) devotes considerable effort and resources assisting students to acquire the quantitative and reading skills necessary for academic and occupational success. A central component of ensuring student success is guiding new students to select the appropriate mathematics and English coursework. Given the extremely broad scope of CSM's mathematics and language arts curricula, selecting the right courses is not an easy task for the new student. Mathematics courses range from remedial arithmetic review to sophomore level mathematics (three semesters of calculus, linear algebra, and ordinary differential equations). Language arts courses vary from remedial writing, reading, grammar, and vocabulary review, to sophomore level course work (English composition and literature, composition and poetry, and creative writing). Both the mathematics and language arts curricula consist of a sequence of courses, each with specific topics, skills, and cognitive outcomes to be learned. Students who have not acquired adequate skills and understanding at one course level will find it exceedingly difficult to comprehend the course content in the next.

Equally broad in scope are the range of skills and academic preparation possessed by students who enroll at CSM. The diversity of both students and curriculum pose a significant challenge. Accordingly, it is extremely important that new students select coursework congruent with their skill level as they embark upon their studies at CSM.

New students’ academic preparation—and the appro...
**Placement Test Outcomes - Mathematics**

Figure 1 presents mathematics course placements. This trend data indicates that the proportion of new students scoring at the basic skills level [MATH 811] decreased 3.5%. Conversely, the proportion of students scoring at the Associate Degree level [MATH 110 through MATH 122] increased 3.5%. The proportion of students scoring at transfer level courses [MATH 125 through MATH 251] remained stable.

Figure 2 displays the same data in terms of specific mathematics course placements. Overall, trend data indicates only minor fluctuations in entering CSM students’ mathematics skill level—as measured by MDTP test scores.

**Placement Test Outcomes - English**

Figure 3 examines English course placements. This data indicates a significant decline in the proportion of students [-14.6%] placing into English basic skills coursework [ENGL 811 and 801] between Fall 1995 and Fall 1998. Conversely, the proportion of students placing into Associate Degree level coursework [ENGL 800] increased by 10.8%. Transfer level course placements [ENGL 100 and 101] registered a slight increase [4.0%] during this time.
Figure 3
CSM English Placement Test Results
Fall 1995 - Fall 1998

Figure 4 examines placement outcomes for specific English coursework. This data indicates a decline in the proportion of students placing the two lowest levels. Although ENGL 801 is the course with the lowest skill level, students who score below the minimum required for entrance into this course are required to enroll in and successfully complete a remedial level reading course prior to attempting a writing composition course.

**PLACEMENT TEST OUTCOMES - READING**

Figure 5 examines reading course placements. In contrast to English course placements, the proportion of students placing into various levels of reading coursework has remained relatively stable: basic skills reading placements [READ 812, 800, 808, 801, and 809] decreased 3.9%. In contrast, Associate Degree level reading placements [READ 802 and 420] increased 3.9%. [Reading courses cannot be used to satisfy general education requirements for transfer students.]

Figure 6 presents the same data for individual reading course placements. This data indicates a decline [11.0%] in the proportion of students placing into the highest level reading course [READ 420].

**CONCLUSION**

Study findings indicate relatively stable course placements in mathematics and a modest increase in the proportion of students placing into higher levels of English and reading coursework, between Fall 1995 and Fall 1998. Beyond this trend data, the findings of this report indicate the extent to which incoming students are in need of pre-collegiate remedial coursework:

- Nearly three-quarters [74.9%] of placement test takers score at the basic skills level or pre-transfer level in mathematics. [See Figures 1 & 2.]
- Nearly two-thirds [64.6%] of placement test takers score at the basic skills level or pre-transfer level in English. [See Figures 3 & 4]

Given that Community College reading coursework cannot be used to satisfy lower-division transfer education requirements, comparable proportions as reported in Figure 1 - 4 are not appropriate. However, study data indicate that nearly one-quarter [23.8%] of placement test takers score at the basic skills reading level.

The findings of this study underscore one of the most challenging issues facing Community College education—viz., the large number of students requiring what has been variously referred to as “remedial”, “developmental”, “pre-collegiate”, or “basic skills education”.
There exists considerable controversy among politicians, educators, and other public decision makers regarding the costs of academically under-prepared students entering colleges. From the point of view of politicians, remedial education constitutes an inappropriate use of higher education facilities to provide instruction on subjects which should have been learned in high school or earlier. Some educators argue that the need to accommodate a remedial population results in a dilution of academic standards and a reduction in academic rigor for non-remedial students.

In contrast to those who deplore the growth in remedial education, many educators view remedial programs as a valuable and “student-centered” solution to the problem of “stalled” educational progress of many students.

It is important to note that remedial education is not an issue confined to the nation’s two-year colleges. A recent report by the U.S. Department of Education, National Center for Education Statistics indicated the following:

- More than three-quarters [81%] of four-year colleges and universities in the United States offer at least one remedial reading, writing, or mathematics course.
- All [100%] of the nation’s two-year college offer multiple remedial courses.
- Nearly one-third [31%] of the nation’s first-time freshmen enrolling in a four-year college was required to take at least one remedial reading, writing, or mathematics courses.
- In California, 34% of University of California first-time freshmen take at least one remedial course. At the California State University (CSU), the comparable figure is 54%; and at individual campuses of the CSU system, the figure is nearly 90%.

As the above data indicate, remedial education has assumed an integral position in higher education, and every indicator suggests that it will be increasingly essential to our nation’s and state’s future. Most demographic and economic forecasts predict a dramatic shift in the balance between skilled and unskilled jobs—with most of the rapidly growing occupations requiring skilled workers with some postsecondary education. Accordingly, remedial education will assume greater significance as a key element in maintaining democratic access to higher education. The report is intended to provide information that can serve as the basis for discussions about how we design an educational process designed to assist every individual who seeks an education.
Figure 5
CSM Reading Placement Test Results
Fall 1995 - Fall 1998

Placement Level

% of Students

Basic Skills
(READ 812, 800, 808, 801, 809)

Associate Degree
(READ 802, 420)

Transfer Gen. Ed. Requirements

Note: California Community College Reading coursework cannot be used to satisfy transfer general education requirements.

Figure 6
CSM Reading Placement Test Results
Fall 1995 - Fall 1998

Placement Level

% of Students

READ 420

READ 802

READ 801 and 809

READ 800 and 808

READ 812

Note: California Community College Reading coursework cannot be used to satisfy transfer general education requirements.
CSM Course Placements Referred to in Text

**Mathematics**

- MATH 811, “Arithmetic Review” 1-3 units
- MATH 110, “Elementary Algebra” 5 units
- MATH 111, “Elementary Algebra I (First Half)” 3 units
- MATH 115, “Geometry” 5 units
- MATH 120, “Intermediate Algebra” 5 units
- MATH 122, “Intermediate Algebra I (First Half)” 3 units
- MATH 125, “Elementary Finite Mathematics” 3 units
- MATH 130, “Analytic Trigonometry” 3 units
- MATH 200, “Elementary Probability and Statistics” 4 units
- MATH 222, “Precalculus” 5 units
- MATH 241, “Applied Calculus I” 5 units
- MATH 251, “Calculus with Analytic Geometry I” 5 units

**English**

- ENGL 800, “Writing Development” 3 units
- ENGL 811, “Intermediate Reading, Interpreting, and Composition” 4 units
- ENGL 801, “Basic Writing Skills” 3 units
- ENGL 100/101 “Composition and Reading with English Practicum” 4 units
- ENGL 100, “Composition and Reading” 3 units

**Reading**

- READ 800, “Preparation for College Study and Reading” 3 units
- READ 801, “Introduction to Study Skills and College Reading” 3 units
- READ 802, “Academic Success Strategies and Advanced College Reading” 3 units
- READ 808, “Basic Phonics Skills” 3 units
- READ 809, “Spelling/Word Attack Strategies” 3 units
- READ 812, “Individualized Reading Improvement” 0.5-3 units
- READ 420, “Speed and Effective Reading” 0.5-3 units

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