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ABSTRACT

A study was undertaken in the Oklahoma State System of Higher Education to determine the number of students in remedial courses in the state's two- and four-year colleges in fall 1992; compare these data with findings from a similar study conducted in fall 1991; and collect data on which students needed remediation, why they required it, and in which subjects remediation was needed most frequently. Results of the study, based on responses on surveys distributed to 606 public and private institutions, included the following: (1) two-year colleges had the highest remediation level, with 13,330 students in remedial courses out of 19,468 students enrolled; (2) for all institutions, the number of remedial students increased 14% and the number of remedial enrollments increased 19% from fall 1991; (3) of all fall 1992 first-time, entering freshmen, 34% required at least one remedial course, compared to 31% for fall 1991; (4) remedial enrollments were largest in mathematics (65%), followed by English (20%), developmental reading (10%), and science (5%); (5) 43% of remedial students met or exceeded the high school core curricular requirement, down from 47% in fall 1991; (6) the level of remediation for first-time, entering freshmen admitted directly from high school remained unchanged from fall 1991 at 29%; (7) for the 1991-92 academic year, the total costs of developmental courses were $18.7 million (3.5% of the total educational and general budget), representing a 16.4% increase from the 1990-91 academic year; and (8) students admitted under the adult admission policy required the highest levels of remediation at both two-year institutions (42%) and four-year universities (55%). (MAB)

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Student Remediation Study

The first student remediation report was presented to the State Regents November 6, 1992. This second annual study indicates that the number of students in remedial courses increased at a rate greater than the increase in first-time-entering freshmen and greater than the total enrollment growth from fall 1991 to fall 1992. This increase is in large part attributable to the implementation of comprehensive student assessment plans and the better identification of inadequately prepared students. While the increase in student remediation was predicted, the level of remediation remains a serious concern.

Demands for student remediation in the region and the nation are very similar to those in Oklahoma. Approximately one-third of students in the region, the nation, and Oklahoma take at least one remedial course. Regionally and nationally, eighty-five to ninety percent of colleges offer some type of remedial course work. In many cases, the colleges are not involved in activities to provide meaningful feedback to high schools about the quality of their students.

This report is designed to provide a "snapshot" of the remedial activity in the fall 1992, to compare these data with the fall 1991 report, and to answer the following questions: (1) Who needs remedial course work; (2) What subject areas require remediation; and (3) Why do students need remediation.

Although this study provides a fairly accurate picture of the level of remediation required, several factors prevent this report from being a comprehensive assessment of the amount of remedial and developmental course activity in the Oklahoma State System. For example, there is a disparity in the definitions of remedial courses leading institutions to provide data that are not always comparable. In many cases these data were collected manually, which can be an error-prone process.

Survey Findings:

Number of Students/Enrollments in Remedial Courses (Table 1)

- Remediation levels are highest at the two-year colleges: 13,330 students; 19,468 enrollments; followed by regional institutions: 2,969 students; 3,705 enrollments; and comprehensive institutions: 1,882 students; 1,991 enrollments;

- Compared to last year's study, the number of remedial students increased 14 percent and the number of remedial enrollments increased 19 percent. The largest increase in remedial students and enrollments occurred at the two-year colleges. Preliminary enrollment data indicate that the total number of first-time-entering freshmen increased eight percent and total headcount enrollment increased by slightly more than four percent;

- These figures reveal that not only are more students involved in developmental education, but also that individual students are taking more remedial courses;

- Of all first-time-entering freshmen in fall 1992, overall 34 percent required at least one remedial course (fall 1991 - 31 percent).

Remediation by Subject Area (Table 2)

- Overall, the State System remedial enrollments were 65 percent in mathematics; 20 percent in English, 10 percent in developmental reading, and five percent in science;

- Ninety-one percent of remedial enrollments at the comprehensive institutions were in mathematics, while two- and four-year institutions spread enrollments more evenly among the four subject areas;

- There has been little change in the distribution of students among the subject areas from fall 1991 to fall 1992.

Remediation and the High School Core Curriculum (Table 3)

- Forty-three percent of remedial students met or exceeded the high school core curricular requirement, down from 47 percent in fall 1991.

Remediation by Type of Entry (Table 4)

- Students admitted under the adult admission policy required the highest levels of remediation at two-year institutions (42 percent), four-year universities (55 percent), and the State System (44 percent). Comprehensive institutions remediated first-time-entering freshmen at higher levels than adult students, 23 percent versus 20 percent;

- The level of remediation of first-time-entering freshmen admitted directly from high school remained unchanged for the State System from fall 1991 at 29 percent;

- The number of transfer students admitted increased 19 percent from 13,911 students to 16,555. The level at which these students required remedial courses increased from 10 percent to 15 percent from fall 1991 to fall 1992. These increases occurred at the two-year colleges.

Estimated Costs for Student Remediation

Although no cost data were collected in the remediation survey, cost data for remedial courses were generated through the State Regents' Unitized Data System for the full 1991-92 academic year. Of the total costs presented, both direct and indirect costs are included:

- For the 1991-92 academic year, the total costs of developmental courses were approximately $18.7 million, or 3.5 percent of the total educational and general budget. This represents a 16.4 percent increase from the finalized $16.1 million total remedial costs for the 1990-91 academic year.

Conclusions:

1) The Oklahoma State System remediation survey results are consistent with regional and national data: approximately one-third of freshmen are not prepared for college level work.

2) Similarly, comparing Oklahoma with the region and the nation, community colleges assume primary responsibility for remedial course work, and mathematics is the discipline which requires the most remediation.

3) As noted in last year's report, given the large number of student enrollments in mathematics remedial courses (65 percent of the total amount of remediation), it is surprising that remedial science course enrollment is only five percent. More institutions had entry level assessment in mathematics in the fall of 1992 than had such assessment in science. Again, this practice will likely change with the continued implementation of the State System assessment policy.

4) Student remediation is expected to continue to increase as institutions move toward full implementation of their respective assessment plans in spring 1993. A positive result is that students with inadequate high school preparation are being identified and assisted prior to failing a college level course.

5) Although there has been a slight drop in the percent of remedial students completing the State Regents' high school core curricular requirement, it is still apparent that the content and rigor of the required courses may be insufficient for college preparation.

6) As noted in the first study, the problem of college remedial course work is not a concern for higher education alone. The issue has serious implications at each educational level from elementary school through graduate studies. The pervasiveness of college remedial course work raises questions about standards and quality as well as the efficient use of taxpayers' dollars.

Recommendations:

The State Regents are currently considering a comprehensive proposal designed to confront the serious concern of inadequate student preparation for college. Parts one and two of the proposal - Required Competencies for Student Entry and Evaluation of these Competencies - focus on the existing 11-unit core curricular requirement and are specifically designed to enhance the courses' content and rigor. Part three of the proposal recommends building on the 11-unit course foundation by adding four high school courses to the requirement. The proposal is summarized as follows:

1) Required Competencies for Student Entry: College and university faculty committees evaluated the content and rigor of the high school learner outcomes as identified by the Oklahoma Curriculum Committee consistent with H.B. 1017. Faculty then compared these high school competencies with the competencies required to be successful in college level courses, noting any differences. A book entitled "Student Competencies for College Success" is the result of the faculty's work. Staff recommends the broad dissemination of the book to college bound students, parents, and teachers.

2) Evaluation of these Competencies: The proposal requires each institution to use the ACT scores in the four subject areas of mathematics, English, reading, and science as the "first cut" in determining student readiness for college level course work. For students found to be inadequately prepared, remediation will be required.

3) Increase in the High School Core Curricular Requirement: It is proposed that the high school core curricular requirement be increased from 11 to 15 units with the additional four units from guided electives in core academic subjects.

This study reinforces the imperative for a comprehensive plan, as detailed above, to address the serious concern of inadequate student preparation for college.

Student Remediation Study

Introduction:

The State Regents' 1991 Student Remediation Survey[1] revealed that one in every three first-time-entering freshmen was not prepared for college-level work in at least one subject area. Further, almost half of these students completed the State Regents' required college preparatory core curriculum. This second annual survey reports that the number of students in remedial courses increased at a rate greater than the increase in first-time-entering freshmen and greater than the total enrollment growth from fall 1991 to fall 1992. The problem of inadequately prepared students continues to be a major area of concern and a drain on the ever dwindling resources of higher education.

This study provides a synopsis of the amount and types of remedial course work offered in The Oklahoma State System of Higher Education in the fall 1992. Findings from this study are compared to the findings of the fall 1991 study. For background and comparison, a brief overview of college remedial studies regionally and nationally is provided. The study concludes with a series of recommendations.

Student Remediation: A National Look:

Updated information on national and regional remedial activity provided in last year's remediation study was not available. The findings of the studies are presented as they appeared in the fall 1991 report.

Data from a 1991 Southern Regional Education Board college remediation survey found that[2]:

- More than one-third of first-time freshmen are not fully prepared for college-level work. These students take at least one remedial course in reading, writing, or mathematics;
- A typical college freshman class of 500 students includes about 180 students (36 percent) who need additional academic assistance prior to taking "regular" college course work;
- States with mandatory testing and placement policies tend to have higher percentages of freshmen identified as needing remedial help;
- Remedial needs for black and Hispanic students are consistently one and one-half to two times those for white students. However, more white students than black students take remedial courses. In a typical remedial class of ten students, six students would be white and four would be minority;

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[1]The terms "*remedial*" and "*developmental*" are used interchangeably in this report.

[2]"College Remedial Studies: Institutional Practices in the SREB States," published by the Southern Regional Education Board, 1991. It is important to note that these data do not include many part-time and older students who also need these services.

students take remedial courses. In a typical remedial class of ten students, six students would be white and four would be minority;

- Reported remedial enrollments at most public and private institutions have increased slightly since 1984. Two-year colleges had the largest increase; doctoral universities, the smallest. On the average, 25 percent of freshmen at doctoral institutions needed at least one remedial course;

- Eighty-five percent of the responding institutions offered at least one remedial course in reading, writing, or mathematics. Remedial mathematics courses were more likely to be offered than writing courses, with writing courses more likely to be offered than reading courses (See Appendix A);

- About three-fifths of the institutions queried reported that they permit simultaneous enrollment in remedial and regular college courses with some restrictions; about one-fifth permit such enrollments with no restrictions;

- Less than half of the responding institutions were able to, or choose to, report student retention rates for remedial and non-remedial students. Of those institutions reporting student retention rates, the median percent of students retained to start a second year at the same institution was 55 percent for remedial students and 65 percent for non-remedial students;

- More than 90 percent of the institutions reported that remedial courses are supported by general institutional funds allocated through the regular budgeting process. Some programs are supported in part with special appropriations or other special funds.

The National Center for Education Statistics reported similar student remediation data in May, 1991:[3]

- Thirty percent of college freshmen in the United States took at least one remedial course in the fall of 1989;

- Twenty-one percent of the freshmen took remedial courses in mathematics, 16 percent in writing, and 13 percent in reading;

- Ninety-one percent of public colleges offered at least one remedial course;

- Forty percent of colleges offering remedial courses were not participating in any activities to reduce the need for such courses; i.e., communicating student deficiencies to the responsible high schools.

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[3]"College-Level Remedial Education in the Fall of 1989;" National Center for Education Statistics; May 1991.

Impetus for Study:

At the January 1992 State Regents' meeting, "White Paper #1: High School Curricular Requirements for College Entry" was presented. The white paper detailed the imperative for addressing the issue of inadequate high school preparation for college entry and expressed the State Regents' commitment to student success through sound academic preparation. Via the white paper, the State Regents initiated a comprehensive evaluation of those courses needed to succeed in college with the expressed intent of increasing the required high school core curricular requirements for college admission. In discussing the white paper, the Regents directed staff to ascertain the amount of remedial course work taught in the State System.

A committee of the Council on Instruction began deliberations on the issue of increasing the number of high school curricular requirements for college entry. At the first committee meeting, members echoed the desire of the State Regents to ascertain the extent of the remedial course offerings. The first Student Remediation Survey was collected on students entering in the fall 1991.

Study Design:

The original institutional survey, developed last year with the assistance of the Council on Instruction High School Core Curriculum Committee, was refined through meetings with other institutional representatives for this report. The survey is designed to provide a "snapshot" of the remedial activity in the fall 1992, to compare those data with the fall 1991 report, and to answer the following questions:

> **Who** needs remedial course work, i.e., first-time-entering freshmen directly from high school, adult students, and/or transfer students?
>
> **What** courses require remediation, i.e., mathematics, English, reading, science, others?
>
> **Why** do students need remediation, i.e., did they not complete the 11-unit high school core curriculum or did they complete the required curriculum but not obtain the needed competencies?

Limitations of Study:

Many of the caveats in the first year's report still apply. This study is a "snapshot" of the students enrolled in remedial course work by tier for the fall of 1992. The survey results are for one semester only and do not provide the full picture of remediation in the State System colleges and universities. For example, a first-time-entering student must remediate any high school course deficiencies within the first 24 hours of course work. Thus, some of the students may have delayed some of the required remedial courses until the spring semester.

Some of the data are incomplete. A large amount of information was requested, and a number of the institutions had to resort to manual computation, which can be an error-prone process.

The numbering system used for remedial course work is not consistent across the State System. At least one university numbers remedial courses beginning with a "1;" most institutions begin remedial course numbers with a "0." Some of the schools, particularly the two-year colleges, have remedial courses that predate even the "0" numbering system.

These limitations notwithstanding, the study meets the State Regents' directive of determining the amount of remedial course work. It also answers the questions of "who, what, and why" for the 1992 fall semester.

Update From Fall 1991 Student Remediation Survey:

There are interesting differences between the first year's report and the data presented in this study. The "Survey Findings" section describes in detail changes from fall 1991 to fall 1992. Highlights from the two years for the State System include:

- The number of students and enrollments in remedial courses increased substantially from last year. As a result, a higher percentage of first-time-entering freshmen required developmental course work;
- Mathematics was still the most common area of remediation in fall 1992 and there was little change in the distribution among other subject areas;
- A slightly lower percentage of students in remediation completed the State Regents' required high school curriculum;
- For the State System, students admitted under the adult admission category continue to require the highest levels of remediation compared to transfer students and students admitted directly from high school;
- The number of transfer students and the level at which they require remediation increased substantially from the first study.

Survey Findings (see attached tables):

Numbers of Students/Enrollments in Remedial Courses (Table 1):

The survey asked how many students were enrolled in remedial courses in the fall **and** the number of enrollments. The number of enrollments is a larger number, because a single student may enroll in more than one remedial course in a given semester.

Predictably, the number of students (13,330) and the number of enrollments (19,468) were highest in the two-year college tier. The regional and comprehensive universities had considerably smaller numbers as follows: regional tier number of students - 2,969; number of enrollments - 3,705; comprehensive tier number of students - 1,882; number of enrollments - 1,991.

The number of students and enrollments in remedial courses increased dramatically from fall 1991 to fall 1992. The number of students increased 14 percent (2,278) and the number of enrollments increased 19 percent (3,951), while the total number of first-time-entering

freshmen increased eight percent (1,811). Preliminary data indicate that total headcount enrollment in the State System increased 4.2 percent (6,949). These figures reveal that not only are more students involved in developmental education, but also that individual students are taking more remedial courses.

The greatest growth in the number of remedial students occurred at the two-year colleges, increasing 16 percent. The number of remedial students at the comprehensive (up six percent) and four-year (up 11 percent) institutions increased to a lesser degree. The increase in enrollments was even more heavily weighted towards the two-year institutions, increasing 22 percent compared to seven percent at the four-year and 11 percent at the comprehensive institutions.

Remedial Course Enrollments (Table 1):

The comprehensive and regional institutions remediated first-time-entering freshmen (students entering directly from high school and adult students) at significantly lower levels than two-year colleges in fall 1992. The comprehensive universities remediated 24 percent (1,101/4,654) of first-time-entering freshmen compared to 22 percent (1,506/6,984) at the regional schools. As expected, two-year institutions remediated at the highest level with 44 percent (6,297/14,272) of first-time-entering freshmen in remedial classes. Overall, the State System remediated 34 percent (8,904/25,910) of all first-time-entering freshmen in fall 1992.

The level of remediation of first-time-entering freshmen increased in the State System by three percentage points from fall 1991 to fall 1992. Comprehensive institutions remained constant at 24 percent, while two- and four-year institutions increased five percentage points and one percentage point, respectively.

Remediation by Subject Area (Table 2):

Mathematics is the most common and science is the least common core subjects which required remediation in the fall of 1992. Ninety-one percent of remediation at the comprehensive institutions was in mathematics. While two- and four-year institutions were also most heavily involved in mathematics remediation, they were more likely than the comprehensive institutions to have developed remedial programs in English, science, and reading.

Levels of remediation at the four-year institutions, by enrollments, are 59 percent (2,181/3,705) in mathematics, 23 percent (865/3,705) in English, nine percent (349/3,705) in developmental reading, and eight percent (310/3,705) in science. Two-year institutions' remedial enrollments were 63 percent (12,232/19,263) mathematics, 21 percent (4,075/19,263) English, 10 percent (1,955/19,263) developmental reading, and five percent (1,001/19,263) science.

Overall, the State System remedial enrollments were 65 percent (16,226/24,959) mathematics, 20 percent (4,972/24,959) English, 10 percent (2,450/24,959) in developmental reading, and five percent (1,311/24,959) science.

The distribution of students among subject areas has not changed significantly since fall 1991. In the fall 1992 survey, developmental reading is included rather than history due to a State Regents' policy change which requires students with a history deficiency to

demonstrate reading proficiency at the twelfth-grade level. Students not achieving this level are required to enter developmental reading before enrolling in a college-level history course.

State System enrollment in developmental reading (10 percent) in fall 1992 was considerably higher than the enrollments in remedial history (four percent) in fall 1991. Science enrollments remained at five percent, and English enrollments dropped from 26 percent in fall 1991 to 20 percent in fall 1992.

Remediation and the High School Core Curriculum (Table 3):

In the State System in fall 1991, 43 percent (7,714/17,798) of remedial students met the high school core curriculum requirement.

Levels of remediation for individuals who have or have not completed the State Regents' required high school core curriculum vary widely among the tiers. At the comprehensive universities, 76 percent (1,426/1,882) of students in remedial courses met the high school core curriculum requirement. The percentage of students in remedial courses who met the high school core curriculum at the two- and four-year schools was smaller (38 percent, 4,961/12,950 and 45 percent, 1,327/2,966 respectively).

Overall, the percentage of students who met the high school core curriculum who required remediation was down four percentage points for the State System.

Remediation by Type of Entry (Table 4):

Students who entered college directly from high school composed the largest number of students in remedial classes; however, the largest proportion of remedial students was found in the adult student group with 44 percent. Of those students admitted in fall 1992, 20 percent (26/130) of students admitted as adults at the comprehensive universities received remediation compared to 55 percent (361/657) and 42 percent (981/2,326) at the four- and two-year institutions, respectively.

Overall, 29 percent (4,315/14,878) of first-time-entering freshmen received remediation in the fall 1992 compared to 44 percent (1,368/3,113) of adult students and 15 percent (2,444/16,555) of transfer students. The highest levels of remediation in two of the categories, first-time-entering freshmen and transfer students, occurred at the two-year institutions.

Transfer students showed a large increase in both the number of students and the level of remediation required from fall 1991 to fall 1992. Of the three groups listed, first-time-entering freshmen admitted directly from high school were the largest group in fall 1991. In fall 1992, transfer students became the largest group, exceeding the number of first-time-entering freshmen admitted directly from high school by 1,677 students. The total number of transfer students increased 19 percent to 16,555 students. The level at which transfer students were remediated in the State System increased five percentage points to 15 percent in fall 1992. The increased remediation of transfer students occurred at the two-year colleges.

The level of remediation of first-time-entering freshmen admitted directly from high school remained unchanged from fall 1991 for the State System. Remediation of adult students decreased from 49 percent to 44 percent.

Estimated Costs for Student Remediation:

The Regents' Unitized Data System was used to determine the cost of remedial education for the first report using the 1990-91 academic year. The preliminary estimate of $16.3 million was finalized for an adjusted amount of $16.1 million. The finalized estimate for 1991-92 was generated through the same process as detailed below.

In reviewing the cost data, the following caveats should be emphasized:

- The fall 1991 and fall 1992 remediation surveys used to generate remedial enrollment and course data did not address the costs of remedial courses;
- The State Regents' Unitized Data System, not the remediation survey, was used to generate remedial course cost data for the full 1990-91 and 1991-92 academic years, as opposed to a single semester;
- Due to data reporting inconsistences involving the coding of remedial courses in the Unitized Data System, the costs reported should be considered an estimate;
- Of the total cost presented, both direct (faculty compensation and departmental costs) and indirect (administration, library, physical plant, academic support, data processing, etc.) costs are included.

With the above caveats, the remedial cost data reflect the following:

- For the 1991-92 academic year, the total cost of developmental courses was approximately $18.7 million, or 3.5 percent of the total educational and general budget;
- This represents a 16.4 percent increase from the finalized $16.1 million total remedial costs for the 1990-91 academic year.

Conclusions:

1) The Oklahoma State System remediation survey results are consistent with regional and national data: approximately one-third of freshmen are not prepared for college-level work.

2) Similarly, comparing Oklahoma with the region and the nation, community colleges assume primary responsibility for remedial course work, and mathematics is the discipline which requires the most remediation.

3) Given the large number of student enrollments in mathematics remedial courses (65 percent of the total amount of remediation), it is surprising that remedial science course enrollment is only five percent. More institutions had entry level assessment in mathematics in the fall of 1992, than had such assessment in science. Again, this practice will change with the continued implementation of the State System assessment policy.

4) It is not surprising, in fact it was expected, that remediation would increase over the previous fall due to the implementation of the State System student assessment policy. What is surprising is the amount of the increase: the number of remedial students increased 14 percent and the number of remedial enrollments increased 19 percent. This increase in remediation has not yet topped out. Full institutional implementation of the respective assessment plans was not required until spring 1993. Next year's report will no doubt note continued growth in the level of remediation required for students to be ultimately successful. The positive side is that students with inadequate high school preparation are being identified and assisted prior to failing a college level course.

5) The slight drop in the percent of remedial students completing the State Regents' high school core curricular requirement may be slightly encouraging (47 percent in 1991 to 43 percent in 1992). However, the drop may be misleading because it was isolated to a few institutions. Nonetheless, it is still apparent that the content and rigor of the required courses may be insufficient for college preparation. For example, according to faculty in the discipline, students meeting the three-unit mathematics requirements should be prepared to succeed in college algebra, but as evidenced by this survey, many are not.

6) As noted in the first study, the problem of college remedial course work is not a concern for higher education alone. The issues have serious implications at each educational level from elementary school through graduate studies. The pervasiveness of college remedial course work raises questions about standards and quality as well as the efficient use of taxpayers' dollars.

Recommendations:

Confronting the complex issue of adequate student academic preparation for college requires a multifaceted approach. To simply increase the number of high school courses required for college entry will not address the problem. This remediation study illustrates that the current 11 units are not doing what they were designed to do. Concentrated efforts must be focused on enhancing the content and rigor of the existing 11 units in addition to building on the 11-unit foundation.

A three-part proposal is currently being considered by the State Regents. The plan is designed to comprehensively confront the serious concern of inadequate student preparation for college. Parts one and two of the proposal - Required Competencies for Student Entry and Evaluation of these Competencies - focus on the existing 11-unit core curricular requirement and are specifically designed to enhance the courses' content and rigor. Part three of the proposal recommends building on the 11-unit course foundation by adding four high school courses to the requirement. The three-part proposal is summarized below:

I. <u>Required Competencies for Student Entry</u>:

To improve the quality of the existing 11 units and to accommodate the competencies instructional methodology being pursued by Oklahoma high schools, college and university faculty committees in the disciplines of English, mathematics, science, and history were named to evaluate the content and rigor of the high school learner outcomes as identified by the Oklahoma Curriculum Committee consistent with H.B.

1017. Faculty were then asked to compare these high school competencies with the competencies required to be successful in college-level courses in these disciplines, noting any differences.

Part I of the three-part package details the result of the faculty committees' work and is designed to focus on improving the quality of the existing 11 units by communicating to the high schools, parents, and college-bound students the appropriate content and rigor of the courses. This effort also addresses the competency based curriculum mandated by H.B. 1017. It places higher education's language in the current language used by common education -- competencies. Such language will also be helpful in dealing with the "applied courses" issue.

II. Evaluation of these Competencies:

Given the faculty established competencies for college level course work just detailed, it is critical to establish a system measurement of these competencies.

Part II of the three-part package proposes that ACT cutscores in the four ACT subject areas be set as a "first cut" in determining student readiness for college level course work. This proposal requires a revision in the entry level section of the Student Assessment Policy requiring each institution to use the ACT scores in the four subtest areas of mathematics, English, reading, and science as this "first cut." Should a student score below the designated level in the tested discipline, s/he will be required to remediate in the discipline area, or, consistent with the institution's approved assessment policy, undergo additional testing to determine his/her level of readiness for college-level work. Following examination, students found not to be ready for college level course work will be **required** to complete the appropriate remediation. Currently, some institutions have mandatory remediation; some schools recommend remediation. The four ACT subscore levels would be communicated to college-bound students, their parents, and their teachers.

It is proposed that this policy modification be effective for students entering the system in fall 1994.

III. Increase in the High School Core Curricular Requirement:

It is recommended that the high school units required for college entry be increased to 15 units for first-time-entering students in the fall of 1997. The additional four units will be selected as follows:

Units (years)	Course Areas
1	Citizenship skills from the subjects of economics, geography, government, non-Western culture.
3	Additional units of subjects previously listed (including the original 11 required units) or selected from the following: computer science, foreign language.

The recommendation provides an admission option for students wishing to enter the comprehensive or regional universities if the student meets the original prescribed 11 units AND scores at the required levels on each of the four ACT subtest areas indicating that remediation is not needed.

This study reinforces the imperative for a comprehensive plan, as detailed above, to address the serious concern of inadequate student preparation for college.

TABLE 1.

Total Number of Student Enrollments in Remedial Courses (Fall, 1992)

Institution	Remedial Courses		All First-Time-Entering Freshmen		
	Number of Students	Number of Enrollments	Total Number	In Remedial Courses	% in Remedial Courses
Comprehensive Total	1,882	1,991	4,654	1,101	24%
Four-Year Total	2,969	3,705	6,984	1,506	22%
Two-Year Total	13,330	19,468	14,272	6,297	44%
Grand Total	18,181	25,164	25,910	8,904	34%

NOTE: Entry-level assessment not fully implemented by some institutions, mandated by State Regents' policy.

TABLE 2.

Remediation by Subject Area and as a Percent of All Student Enrollments in Remedial Courses (Fall, 1992)

Institution	Remedial English		Remedial Math		Remedial Science		Developmental Reading		Enrolled in Remedial Courses	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Comprehensive Total	32	2%	1,813	91%	0	0%	146	7%	1,991	100%
Four-Year Total	865	23%	2,181	59%	310	8%	349	9%	3,705	100%
Two-Year Total	4,075	21%	12,232	63%	1,001	5%	1,955	10%	19,263	100%
Grand Total	4,972	20%	16,226	65%	1,311	5%	2,450	10%	24,959	100%

NOTE: Totals may differ from number of enrollments due to remedial courses offered in other subject areas.

TABLE 3.

Remediation and the High School Core Curriculum* (Fall, 1992)

Institution	Remedial Students *Not Meeting* Core Requirement	Remedial Students *Meeting* Core Requirements	% of Remedial Students *Meeting* Core Requirements
Comprehensive Total	456	1,426	76%
Four-Year Total	1,639	1,327	45%
Two-Year Total	7,989	4,961	38%
Grand Total	10,084	7,714	43%

* 11 units

NOTE: Totals do not agree with previous chart due to students enrolled in remedial courses that entered at some time other than Fall 1992.

TABLE 4.

Remediation by Type of Entry (Fall 1992)

Institution	High School 1st-Time Entering Freshmen*			Adult Admission 1st-Time-Entering-Freshmen			Transfer Admissions		
	Total Number	Number in Remedial Courses	Total 1st-Time-Freshmen	Total Number	Number in Remedial Courses	% of Total Adult Admissions	Total Number	Number in Remedial Courses	% of Total Transfer Admissions
Comprehensive Total	4,231	989	23%	130	26	20%	3,582	301	8%
Four-Year Total	4,671	854	18%	657	361	55%	5,082	273	5%
Two-Year Total	5,976	2,472	41%	2,326	981	42%	7,891	1,870	24%
Grand Total	14,878	4,315	29%	3,113	1,368	44%	16,555	2,444	15%

* Admitted directly to college from high school.

NOTE: Totals and percentages may not agree with previous charts due to the number of students in remedial courses that entered at some time other than Fall 1992 and other factors

NOTE: Reflects percent and number of students actually enrolled in remedial courses in Fall 1992. Students requiring remediation, but not enrolled in remedial courses during Fall 1992 are not included.

APPENDIX

APPENDIX A

Percentage of Institutions that Offer Remediation and Average Number of Courses Offered in Reading, Writing, Mathematics, by Institution Type, SREB States, 1988-89

Institution Type	Percent Institutions Offering One or More Remedial/Developmental Courses				Average number of Courses offered		
	Reading, Writing, or Mathematics	Reading	Writing	Mathematics	Reading	Writing	Mathematics
Public							
Two-Year (N=244)	99	92	95	96	2.3	2.1	2.9
Liberal Arts/Comprehensive (N=113)	86	63	79	82	2.1	1.8	2.6
Doctoral/Research (N=50)	78	58	72	72	1.8	1.5	1.9
All Public (N=407)	93	80	88	89	2.2	2.0	2.7
All Private (N=199)	70	47	60	62	1.9	1.7	2.1
All Institutions (N=606)	85	69	79	80	2.2	1.9	2.6

Note: Average number of courses offered are based on number of institutions that offered at least one remedial course.

"College Remedial Studies: Institutional Practices in the SREB States," published by the Southern Regional Education Board, 1991. It is important to note that these data do not include many part-time and older students who also need these services.