



MARYLAND HIGHER EDUCATION COMMISSION

A

STUDY OF REMEDIAL EDUCATION

AT

MARYLAND PUBLIC CAMPUSES

MAY, 1996

MARYLAND HIGHER EDUCATION COMMISSION

16 Francis Street, Annapolis, Maryland 21401

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EXECUTIVE SUMMARY

The problem of academically underprepared students entering college is so extensive that most public postsecondary institutions offer remedial and developmental programs. The availability of these programs at both two- and four-year institutions raises serious policy questions related to the role and mission of campuses, the cost of higher education, funding, academic standards, access and educational opportunity, graduation and retention rates, and workforce preparation. Accordingly, the Maryland Higher Education Commission has conducted a statewide study of remedial education at public colleges and universities.

The study includes an examination of the number and type of students who require remediation, the policies and standards used to determine student placement, the success of remedial students and the evaluation of remedial programs, staffing for remedial courses, the cost of remedial education, and sources of funding.

Policy questions arising from the findings of the study are also examined.

Highlights from the study:

Participation

- More than 46,000 underprepared students, including new freshmen, returning adults and transfers, were enrolled at Maryland public campuses during the 1994-1995 academic year. Nearly 90 percent of these students attended a community college.
- Nearly half (47 percent) of all new students at Maryland public campuses who enrolled directly from high school received some form of remediation, and 23 percent required assistance in two or more subjects. Almost 60 percent of the first-time students at community colleges and one-fourth of those at public four-year institutions received remediation.
- More than three-fourths of the African-Americans enrolled at community colleges and over 40 percent of those at public four-year campuses obtained remedial help.
- Students who received remedial help at both community colleges and public four-year institutions trailed other students in their grade point averages and in their performance in their first math and English courses.
- Students admitted to a public four-year campus on exemption had much higher remediation rates than other students.

Institutional Policies and Placement

- All public campuses with remedial programs use some type of test to place underprepared students.
- However, public institutions vary widely in terms of the particular tests employed to place students, the methods used to determine cut-off scores, and policies regarding the assessment of specific groups of entering students.
- Most public campuses require satisfactory completion of a remedial course or program sequence before a student can exit remediation. Most institutions permit students to take a course a maximum of two or three times.

Courses and Programs

- Maryland public campuses offer nearly 200 separate remedial courses. The greatest number focus on mathematics, writing, or reading and writing combined.
- All of the community colleges and public four-year institutions allow students to enroll concurrently in remedial and regular courses with the exception of those for which the remedial class is a prerequisite.
- All of the community colleges and seven of the public four-year campuses offer summer courses, programs or other types of assistance for remedial students.

Evaluation

- Student evaluations are used by all of the public institutions to assess remedial activities. Most also rely on instructor evaluations, student completion rates, and follow-up studies of the academic performance of remedial students.
- The greater the amount of remediation required by community college students, the lower their four-year success rate in terms of retention, graduation and transfer. This pattern held for all students and for African-Americans.
- Students from public four-year campuses who did not receive any remediation had a greater four-year graduation rate than did those who obtained some form of remedial help. This was true for all students and for African-Americans.

Staffing

- Maryland's public campuses employed 381 full-time and 758 part-time faculty who taught at least one remedial course or program during the 1994-1995

academic year. More than 90 percent of these faculty were at a community college.

- About one-third of the institutions reported always providing training to faculty who teach remedial courses.

Funding

- Maryland public campuses spent \$17.6 million on remedial courses and activities in FY 1995, representing 1.2 percent of their total expenditures in that year. This compares to 1.1 percent of the total public higher education budget in FY 1984.
- More than 90 percent of the expenditures for remedial education were at the community colleges. As a result, remedial costs made up a much larger proportion of the budgets of community colleges (4.1 percent) than public four-year campuses (0.1 percent). The percentage of total expenditures that went to remedial education has increased at the community colleges in recent years, but declined at the public four-year campuses.
- More than 95 percent of the revenues for remedial activities at the community colleges came from general institutional funds in FY 1995. Federal grants and contracts contributed 4.1 percent, down from 9.3 percent in FY 1978.
- Less than half (48.1 percent) of the revenues for remedial education at public four-year campuses were drawn from general institutional funds. More than 30 percent came from special fees assessment, and 20.9 percent from federal contracts and grants. The proportion from federal sources was down from 30 percent in FY 1978.

INTRODUCTION

The problem of students who are not prepared academically for college is so widespread that most public postsecondary institutions offer remedial and developmental programs. Nearly one-third of the freshmen enrolled at public campuses nationally require remedial help, according to figures from the U.S. Department of Education. Similar patterns can be found at institutions in the Northeast and in states represented by the Southern Regional Education Board (SREB).

This phenomenon is not new to higher education. In 1828, an article in *Yale Report* complained about the college's practice of admitting students with "defective preparation." By 1900, 84 percent of colleges and universities in the country had established preparatory schools to assist students lacking in basic skills. The growth of remedial education continued in the 1920s and 1930s with the establishment of two-year colleges, in the 1950s as a result of the interest sparked in student preparedness in the wake of the Soviet Sputnik satellite, and in the 1960s and 1970s as a consequence of the civil rights movement which expanded educational opportunities to minorities, women and the disabled. By the 1970s, nearly 90 percent of all U.S. colleges and universities offered remedial programs or activities, and this pattern remains in place today.

Despite its pervasive presence on campus, remedial education is considered by many to be an inappropriate activity for a postsecondary institution, even community colleges which traditionally have "open door" admissions policies. Academicians, trustees, legislators and average citizens have questioned the wisdom of providing a service in college that supposedly was paid for in elementary and secondary school. These voices have become more frequent in a period in which higher education has to compete with other state priorities for limited resources and in which college costs are climbing faster than the rate of inflation.

As a result, both multicampus boards and individual institutions have begun to reexamine their admission policies with regard to students who lack fundamental skills. Beginning this fall, the City University of New York will not accept students unable to complete remedial work in the freshman year. State campus systems in Wisconsin, Florida, Texas, Georgia, Tennessee and New Jersey also have tightened requirements. Legislation was even introduced, unsuccessfully, in Florida that would have required public schools to reimburse colleges for the cost of remedial courses for their graduates.

Both supporters and critics of remedial education at the college level will agree that the availability of these programs at two- and four-year public institutions raises serious policy questions related to the role and mission of campuses, the cost of higher education, funding, academic standards, access and educational opportunity, graduation and retention rates, and workforce preparation in a global and information-based economy. Because of the growing interest in this issue by lawmakers and other state officials, higher education administrators and the general public and because of the need to collect data that can serve as the basis for strategies and actions, the Maryland Higher Education Commission has conducted a statewide

study of remedial education at public colleges and universities.

Description of the Study

The study will examine the number and type of students who require remediation; the policies, instruments and standards that are used to determine student placement in and completion of remedial courses; the kinds of remedial courses and activities offered; the success of remedial students and the evaluation of remedial programs; staffing for remedial courses; the cost of remedial education; and the sources from which it is funded. The study will conclude by addressing a series of policy questions arising from the findings.

Definition of Remedial Education

For the purpose of this study, remedial education refers to programs, courses or activities designed specifically for college students who have basic deficiencies in college-level reading, written or oral communication, mathematics, or other skills, as defined by the institution. The term *developmental education*, which is used by some institutions, was considered to be interchangeable with *remedial education*. Courses in English as a Second Language were deemed remedial only if they are intended to equip students who are underprepared to do college-level work.

Method

Information related to student participation was drawn chiefly from the High School Graduate System of the Commission's Student Outcome and Achievement Report (SOAR), which contains data about the performance of high school graduates in their first year in college. Included are items dealing with assessment for remediation in math, English and reading. All figures are for seniors who graduated from high school during the 1992-1993 academic year and enrolled at a Maryland public campus in 1993-1994. This is the most recent SOAR data available for publication. The success rates of remedial students, in terms of retention, graduation and transfer patterns, were determined by matching data elements from SOAR and the Commission's Enrollment and Degree Information Systems (EIS and DIS). Figures were presented for fall of 1991, 1992 and 1993.

Information about institutional policies and placement, courses and programs, evaluation, staffing and funding was obtained from a survey of remedial education which the Commission asked each community college and public four-year campus to complete in November 1995. Institutions also were asked to supply the total number of underprepared students who were enrolled at their institution in the 1994-1995 academic year. This figure differed from the SOAR information in that it included transfer students, returning adults and others as well as first-time entering students directly from high school. SOAR only contains the last of these groups.

An initial draft of the questionnaire, which was prepared by the Commission staff, was shared

with the higher education segments and institutions for their review prior to its administration. Improvements were made in the instrument as a result of the comments received. Responses to the questionnaire were received from all of the public campuses. A copy of the questionnaire is appended to this report.

Limitations

There are several limitations inherent in this study:

1. The definition of remedial education is campus-based ("as defined by the institution"). Since campuses can attach different meanings to "remedial", inter-institutional comparisons should be made with caution. Equally underprepared students may be required to take different types of remediation, depending on the institution at which they enroll.
2. The accuracy of the questionnaire data is dependent on the quality of effort that went into its completion at each institution.
3. The definition of "remedial" in SOAR differs slightly from the one used on the questionnaire, as described above. "Remedial" is defined in SOAR as a course or series of courses or services designed to remedy deficiencies in preparation for college-level work.
4. SOAR includes data only about students who entered college directly from high school. Therefore, information about the types of students who received remediation and the success rates of these individuals is not available for other kinds of students.
5. While SOAR collects annualized information (students who enrolled in the summer, fall and spring), EIS consists of a snapshot of students in attendance at a point of time each fall. For this reason, it is impossible to match the records of EIS with students in SOAR who enrolled in other than the fall semester of any particular year. Hence, only students who entered in the fall are included in the analyses of success rates.
6. The figures supplied about the funding of remedial programs may be just estimates and are not consistently reported across institutions.

Information from two previous studies on remedial education, prepared by the State Board for Higher Education (SBHE) in 1980 and 1985, is integrated into the report for comparative purposes when appropriate. Caution is recommended in interpreting these comparisons, since the definition used for "remedial education" in this report is slightly different from the one in the SBHE studies.

PARTICIPATION

As in most other states, providing basic skills training to students is a major enterprise in public postsecondary education in Maryland. Each of Maryland's 18 community colleges offers remedial courses and programs in mathematics, English/writing, and reading. All but two of the state's public four-year institutions (University of Maryland at Baltimore and St. Mary's College of Maryland) provide some form of remediation. Three campuses, University of Maryland at College Park, University of Baltimore, and Frostburg State University, only supply remedial assistance in mathematics. UMCP administers a placement test to students to determine whether they must complete non-credit courses in mathematics before enrolling in credit courses.

Maryland's public colleges and universities reported there were 46,283 underprepared students enrolled at their institutions during the 1994-1995 academic year. Nearly 90 percent of these students (41,349) were at a community college, which are "open admission" institutions that are required to accept all students. These figures represent an unduplicated count of all first-time entering students and transfer students who were assessed and identified as underprepared, as well as all other students enrolled in remedial education programs.

Type and Amount of Remediation Received

Information from SOAR was analyzed to determine the type and amount of remediation received by new students at Maryland's public campuses who entered directly from a high school in the state during the 1993-1994 academic year. Students were categorized on the basis of whether they required no remedial assistance or received help in just one area (math, English or reading), two of these, or in all three. Table 1 contains the data.

Nearly half (47 percent) of all new students at Maryland public campuses received some kind of remediation. Nearly one-quarter (23 percent) required remedial assistance in two or more subjects. Math remediation was needed by 37 percent of the students, English by 24 percent, and reading by 20 percent.

Almost 60 percent of the first-time students at Maryland's community colleges required remedial assistance, and almost one-third (32 percent) needed help in two or more subjects. Nearly half (47 percent) received math remediation, 33 percent in English and 27 percent in reading.

One-fourth of the new students at the public four-year campuses received some type of remediation, with most of this help coming in mathematics. Nineteen percent of the students at these institutions, and 30 percent of those who enrolled at UMCP, were unprepared for college-level mathematics. A majority of the students at three of the state's historically black campuses received some type of remedial help: Coppin (66 percent), University of Maryland Eastern Shore (56 percent), and Bowie (54 percent).

Remediation Received on the Basis of Gender and Race

Tables 2 and 3 provide breakdowns by gender and race in terms of the remediation received at the community colleges and public four-year institutions.

The percentage of women needing remedial assistance was slightly higher than that of men at both the two- and four-year campuses. A greater percentage of women (49 percent) than men (44 percent) at community colleges received math remediation, while more men (35 percent) required help in English than did women (30 percent).

More African-Americans, both at community colleges and public four-year institutions, received some type of remedial help than did Asians, whites and persons of other races. More than three-fourths of the African-Americans enrolled at community colleges required remediation, and one-third needed it in all three subject areas. More than 40 percent of the African-Americans at public four-year institutions obtained remedial assistance. This is consistent with research conducted by SREB, which found that African-Americans and Hispanics are more prone to be enrolled in remedial courses.

In interpreting remedial rates on the basis of gender and race, it is important to control for the ability level of students. Accordingly, an examination was made of the remediation patterns of men and women, both white and African-American, in terms of their SAT verbal and mathematics scores. The figures in Tables 4 and 5 show that there was an inverse relationship between the test scores of students, regardless of race and gender, and their need for remediation. Students with the lowest test scores, both math and verbal, had the highest remediation rates. The data suggest that more African-Americans need remedial assistance, because larger numbers of them have lower SAT scores and may need better academic preparation in elementary and secondary school.

Performance in First Year of College Based on Remediation Received

New students at both community colleges and public four-year institutions who received some form of remediation earned a lower grade in their initial math and English courses than did those who did not need remediation (Tables 6 and 7). The cumulative grade point average of remedial students also was below that of nonremedial students at both types of institutions. Generally, students who needed remedial help in two or more subjects fared less well in their first math and English course, as well as in terms of their grade averages, than did those who required assistance in just one area. It is likely, of course, that the students who received remediation would have performed even less well had they not obtained academic help.

Students who were admitted to a public four-year campus as an exemption to the standard admissions policies had much higher remediation rates than did other students (Table 8). Nearly two-thirds of the admission-exempted students received some kind of remedial help, and 30 percent required it in all three subject areas. In comparison, 23 percent of the students who entered through the regular admissions process needed remediation.

INSTITUTIONAL POLICIES AND PLACEMENT

The public campuses were asked to supply information regarding any written policies they have for their remedial studies programs, to name the tests that are used to identify and place students in remedial courses, to describe how cut-off scores are determined, to indicate which groups of students are assessed, and to state the criteria used to determine when students can exit remedial courses and programs and whether there are limits on the number of times remedial classes or examinations can be taken.

Every institution except the University of Baltimore, which does not have freshmen, reported that it had written policies, standards or guidelines that are used for the placement of academically underprepared students.

Each public institution that has remedial programs uses some form of test to place underprepared students in remedial courses (Table 9). Five community colleges and four four-year campuses also rely on a review of students' high school record or SAT/ACT scores or conduct an interview. In 1980, most institutions had no mechanism for the systematic screening of incoming freshmen.

Campuses use a wide assortment of tests and instruments to place students (Table 10). ETS' Computerized Placement Test (ACCUPLACER) was the most frequently employed instrument in mathematics and English/writing, and it was second to the Nelson-Denny Reading Test in reading. In house or institutionally-developed instruments were used by several campuses to test student ability in mathematics and English/writing. Other commercial instruments adopted by three or more campuses: mathematics (ETS Descriptive Tests of Mathematic Skills and Mathematical Association of America), English/writing (ETS Assessment Placement Tests for Community College Students and Test of Standard Written English), and reading (ETS-DTLS and New Jersey Test of Basic Skills).

Institutions also vary in the methods they use to determine the cut-off scores for the placement of underprepared students in remedial courses (Table 11). Some campuses employ different approaches for the separate subject areas of remediation. Locally-developed norms are used by the largest number of institutions (25), and 10 employ nationally-developed norms. Grade-level equivalences are used by five and specific deficiencies and competencies by two.

Campuses also have widely differing policies in terms of the groups of entering students who are assessed (Table 12). Seven community colleges assess all or virtually all students. Of the remainder, ten assess students who are enrolled in certain courses, notably mathematics or English, and nine assess just degree-seeking students. Other groups of students who are assessed by two or more community colleges: all new students, students who have earned a certain number of credits, high school students taking community college classes, full-time students, transfer students without certain coursework or earned credits, and all students enrolled in English as a Second Language programs.

Just two of the public four-year institutions assess all entering students. Most assess either all new students and/or transfer students who lack certain coursework or number of credits.

The most common method that public institutions use to determine when students can leave a remedial course or program is satisfactory completion of that course or program sequence (Table 13). Fourteen community colleges and nine four-year campuses employ this approach. Eight community colleges and three four-year institutions require students to pass an exit test in addition to or in place of course completion. Two community colleges require students to either complete the course or pass an exit exam.

Campuses also vary in the number of times they allow students to take remedial classes or an examination (Table 14). Six community colleges and five public four-year institutions have no limitations. Most of the remaining institutions permit students to take a course no more than twice or three times.

COURSES AND PROGRAMS

Maryland's public campuses, particularly the community colleges, offer a large number of programs, courses and other remedial activities, including skills labs, learning centers and tutoring, that seek to improve a student's abilities in mathematics, writing or other forms of verbal communication, or reading (Table 15).

The community colleges provide 169 separate remedial courses. Fifty are in mathematics, 39 in English/writing, and 26 in reading. There are an additional 50 courses which focus on both reading and writing skills, and four courses which combine all three skills areas. Eight community colleges also reported offering skills labs, learning centers and/or tutoring activities.

The public four-year campuses reported 27 remedial courses: 14 in math, 5 each in reading and English/writing, two which include both reading and writing skills, and one that mixes all three. Five four-year institutions indicated having skills labs, learning centers and/or tutoring activities.

An overwhelming majority of the community college courses are offered for institutional credit: enrollment counts toward status as a full- or part-time students but not for an academic degree. Most of the remedial courses at the public four-year campuses are available either for institutional credit or for no credit. However, three of the remedial courses at University of Maryland University College can be taken for credit, as can the remedial mathematics course at Salisbury.

All of the community colleges allow students to enroll in remedial and regular courses at the same time, except that students cannot take courses for which the remedial classes are a prerequisite. All of the public four-year campuses also permit students to enroll concurrently in remedial and regular courses. Nine have various restrictions, including a prohibition on

enrolling in regular courses in the same discipline, limitations on the student's course load, and a requirement that students cannot be taking above a certain number of remedial courses.

All community colleges offer summer courses, programs or other types of assistance for students needing remediation. Seven of the public four-year campuses also provide summer courses. Participation in summer courses or programs is a condition of admission for incoming freshmen at three historically black institutions (Bowie, Morgan, and University of Maryland Eastern Shore).

EVALUATION

The public campuses use a mix of methods on at least an annual basis to evaluate remedial activities at their institution (Table 16). All of the community colleges employ student evaluation of courses, activities or programs. Most also employ instructor evaluations, student completion rates, and follow-up studies of the academic performance of remedial students. Faculty surveys and effectiveness studies are used by a few colleges. Student evaluations also are an evaluation tool at all of the public four-year institutions, and most of these campuses also rely on student completion rates, follow-up studies and instructor evaluations.

Of the institutions which do not conduct follow-up studies of remedial students on a yearly basis, many indicated that they do this type of research at least periodically.

Another evaluative approach is to track the retention rate of remedial students. Table 17 displays the status after four years of all new full-time community college freshmen who enrolled directly from high school in fall 1991 on the basis of the amount of remediation they received. Table 18 shows this same information for African-American community college students. Student success, as defined by the percentage transferring to a four-year institution and/or graduating, increases as the amount of remediation received declines. Students who did not require remedial assistance had the greatest success rates (49.2 percent). Those who received help in just one subject were next highest, followed by students who needed remediation in two. Students who had obtained remedial assistance in math, English and reading experienced the lowest transfer and graduation rates (17.6 percent). A similar pattern emerged for African-American students: those who required no remediation earned a success rate of 35.9 percent, compared to 12.1 percent for those who needed remediation in all three subjects.

The findings for students at public four-year colleges and universities on the basis of remediation received are less clear. Tables 19 and 20 contain, for all students and African-American students respectively, the percentage of new full-time freshmen who entered a Maryland public four-year institution directly from high school in fall 1991, 1992 and 1993 and who remained enrolled at this campus and, for those who matriculated in 1991, graduated within four years from any public institution in the state. While the differences are not as stark as at the community colleges, the retention rate of students who had received remediation in three subjects

generally trailed that of most other students. In addition, the four-year graduation rate of 1991 students who had not needed remediation (26.3 percent) was greater than that of students who had received any form of remedial assistance.

The retention, graduation and transfer rates of remedial students, of course, may have been even lower if they obtained no help.

STAFFING

Maryland's public campuses employed 381 full-time and 758 part-time faculty who taught at least one remedial course or program or participated in other remedial education activities during the 1994-1995 academic year (Table 21). More than 90 percent worked at a community college.

About one-third of the institutions reported that they always provide faculty who teach remedial education with prior, concurrent or in-service training in the instructional techniques appropriate for their classes. Another one-third of the campuses supply this training in most, but not all, cases.

FUNDING

Campuses were asked to report the total amount of funds expended at their institution in FY 1995 that were associated with the cost of remedial courses and all other remedial activities combined. The latter category included tutors, readers, assessment materials, and office and lab support. Expenditures used by both remedial and nonremedial students were to be prorated.

Expecting that some institutions would have difficulty supplying precise breakdowns of the cost of remedial education, the campuses were told to provide their best estimate if it were not possible to supply exact figures. The costs of remedial education are often distributed among various departmental budgets and can be difficult to track. Although the information requested by the Commission was straightforward, a few institutions reported that their accounting systems could not provide the data in the desired form.

Examples of the types of questions raised were how to apportion the salary of faculty whose teaching load included remedial and nonremedial courses, how to weight the fringe benefits of full-time remedial staff, how to compute the percentage of remedial activities within the standard operating budget, and how to treat skills labs and learning centers that service all students. Two community colleges, Charles County and Montgomery, reported only instructional salary costs.

Because of the variations in the information provided by the campuses, caution should be exercised in interpreting the figures in this report. Further, the use of such measures as per

student or program costs were avoided. Because of the growing interest in the expense of remedial education by state officials and others and the desire to do cost benefit analyses and other studies, mechanisms need to be developed to collect accurate, consistent and complete data about funding across public institutions.

Maryland public campuses spent \$17.6 million on remedial courses and activities in FY 1995 (Table 22). This represented 1.2 percent of their total expenditures in that year. Remedial education comprised 1.1 percent of all higher education expenditures in FY 1984 and 1.5 percent in FY 1978.

More than 90 percent of the expenditures for remedial education were at the community colleges in FY 1995. Two-year institutions spent \$16.2 million, while public four-year campuses expended \$1.4 million. This distribution of money is consistent with the enrollment patterns of remedial students.

As could be expected, remedial costs make up a larger proportion of the budgets of community colleges than four-year institutions. Of the total expenditures of community colleges in FY 1995, 4.1 percent went to cover the costs of remedial courses and other activities, up from 2.6 percent in FY 1984. In comparison, only a small fraction of the budgets of public four-year campuses (0.1 percent) were spent on remedial services, and this figure has steadily declined over the years (from 0.9 percent in FY 1978 and 0.3 percent in FY 1984). These figures suggest that in recent years community colleges have become more involved with remedial activities, while public four-year campuses have been reducing or even shedding their roles in this area.

The campuses also were asked to indicate the revenue sources for remedial courses and other remedial activities at their institutions (Table 23). More than 90 percent of the revenues at the public colleges and universities came from general institutional funds, and 5.5 percent from federal grants and contracts. However, there was a large difference between the two- and four-year campuses.

Nearly all of the revenues at the community colleges (95.8 percent) were drawn from general institutional funds. Federal grants and contracts contributed 4.1 percent, down from 9.3 percent in FY 1978. Except for Allegany College, no two-year institution relied on special fees (those assessed to students in addition to normal tuition or fee charges) to fund remedial activities.

In contrast, less than half (48.1 percent) of the revenues for remedial education at public four-year campuses in FY 1995 came from general institutional funds. More than 30 percent resulted from special fee assessments; the great majority of these came at UMCP, where all of the expense associated with the mathematics placement test and remedial mathematics courses were borne by the students taking them. Federal contracts and grants provided 20.9 percent of the revenues for remedial activities, down from 30.0 percent in FY 1978.

POLICY QUESTIONS ARISING FROM THE STUDY

Colleges and universities in the United States have a long history of providing remedial education to underprepared students, and this tradition is apt to continue in some form for many years. A college degree is seen as a necessity for a professional or technical job in our society, and students with wide ranging abilities and experiences are enrolling in postsecondary education. Undergraduate enrollments in Maryland are projected to rise by 30,000 over the next 10 years, with community colleges attracting more than 60 percent of these new students. According to SREB, about 35 percent of high school students take a college preparatory curriculum, yet 55 or 60 percent are enrolling in postsecondary education after graduation.

A number of policy questions and issues about remedial education confront the state.

How much remedial education is appropriate at the college level and who should provide it?

Given the increasing need to spend scarce higher education dollars efficiently, should remedial education be offered at all public institutions? Suggestions have been made that remedial programs be restricted to community colleges. Ninety percent of remedial enrollments and funding in Maryland are found at the two-year institutions, and the proportion of community college budgets spent on this type of assistance is growing. However, this policy would be controversial, since it would impact the flow of students among institutions and likely reduce enrollment at some public four-year campuses.

Attention also is being given to "privatizing" remedial services. A Baltimore-based tutoring company initiated a series of remedial math courses in cooperation with Howard Community College. The pilot project, which involved teaching two sections with a total of 36 students, was designed to gauge whether the firm has a potential market for higher education services. The company's classes at Howard have a student/faculty ratio of 6:1, compared to a typical remedial class in which the proportion of students to instructors would be four times as great. However, the course fee for the firm's classes is more than four times that of a typical remedial course at Howard.

How much public funding, if any, should be used to pay for remedial education?

Public financing for remedial programs will be debated increasingly as state revenues decline. Legislators, other state officials and taxpayers will continue to query whether the state can afford to pay twice for the instruction of basic skills--once in school and again in college. Institutions need to be able to track the true expense of remedial activities to comply with accountability demands as well as to do more thorough program evaluations and cost benefit analyses.

Campuses also may want to consider assessing special fees to students to cover at least part of the cost of remedial services. This may be especially appropriate for the community colleges,

which are open-admission institutions and have little control over the entrance standards of students. Yet, only one community college currently imposes special fees for remedial services, and it represents only a small portion of the revenues for that institution. However, special fees would have to be implemented in a manner that would not impede the enrollment of economically-disadvantaged students.

How effective are remedial education programs?

Remedial programs are evaluated in some form at all Maryland public institutions, but the methods vary among campuses. One type of analysis would be especially insightful: learning how students who receive remediation perform in college in terms of academic achievement, retention, progression, and graduation. Studies on the relationship between the type of exit criteria used for remedial courses and subsequent readiness for college-level work also would be useful in evaluating the effectiveness of these programs.

Do the students who are placed in remedial programs tend to be from specific groups or lack certain academic preparation in high school?

Understanding the academic, demographic and socio-economic characteristics of students who require remedial assistance in college can enhance early intervention efforts.

The remedial enrollment for African-Americans, both in Maryland and in the SREB region, is substantially higher than for other groups. This has relevance for Maryland, where African-Americans make up nearly one-quarter of all undergraduates--a proportion which has risen rapidly in recent years and is expected to continue to climb due to the increase in the minority school age population.

The Commission will soon have the ability to match SOAR data to information about high school preparation supplied by The College Board and the American College Testing Program. This information, which will be reported this summer, will provide a better understanding of how effectively Maryland high schools are equipping students for college.

Are the standards required for high school graduation sufficient for college success?

There is concern among high school administrators that course work, particularly in basic skills, may not be consistent with the requirements demanded of college freshmen. While Maryland's number of remedial students is consistent with regional and national averages, it is still sobering that nearly half of all new college freshmen entering from high school need help with fundamental skills. The state already plans to require high school seniors to pass competency tests in basic academic subjects. Other possible alternatives include increasing high school graduation requirements, enhancing the quality of courses, and encouraging students who plan to enroll in postsecondary education to take a college preparatory curriculum. The new Maryland Partnership for Teaching and Learning K-16 would be an ideal forum to examine these options.

Should public colleges and universities set common standards and definitions for remediation?

The policies, instruments and standards used by Maryland colleges and universities to identify remedial students and place them in appropriate courses vary widely, even among similar types of institutions. As a consequence, remediation rates are not comparable across institutions. The practice of using different tests and cut-off scores on the same tests to determine remedial placement makes it hard to standardize the meaning of "college-level work." The development of articulation agreements setting common standards and definitions across campuses, particularly those with similar missions, would remedy this problem. The joint task force of the Commission and the Maryland Department of Education, appointed last fall to suggest improvements in the SOAR report process, recommended this course of action.

TABLES



Table 1
 Percentage of 1993–1994 Freshmen at Maryland Public
 Colleges and Universities Who Received Remediation

	N	No Remediation	Math Only	English Only	Reading Only	Math/ English	Math/ Reading	English/ Reading	Math, English and Reading
Community Colleges									
Allegany	287	37.3%	20.6%	5.2%	0.3%	23.7%	1.0%	1.7%	10.1%
Anne Arundel	1,452	40.2%	25.1%	1.4%	3.7%	3.0%	8.3%	3.9%	14.5%
Baltimore City	407	16.0%	4.9%	3.9%	1.2%	8.4%	6.9%	5.2%	53.6%
Carroll	412	65.0%	9.2%	8.5%	1.0%	6.8%	1.0%	4.9%	3.6%
Catonsville	1,190	51.8%	10.5%	12.2%	1.6%	8.0%	0.8%	7.6%	7.6%
Cecil	189	45.0%	14.8%	9.5%	4.8%	9.0%	5.8%	3.2%	7.9%
Charles County	732	53.1%	10.5%	10.4%	6.1%	6.4%	1.9%	5.7%	5.7%
Chesapeake	263	60.1%	27.8%	2.3%	0.0%	8.4%	0.4%	0.4%	0.8%
Dundalk	233	18.0%	21.5%	5.2%	0.4%	27.5%	2.1%	2.1%	23.2%
Essex	993	35.2%	18.3%	2.9%	7.6%	5.8%	8.5%	4.9%	16.7%
Frederick	451	40.4%	20.2%	7.8%	3.5%	11.1%	1.6%	3.8%	11.8%
Garrett	65	29.2%	40.0%	3.1%	0.0%	18.5%	0.0%	0.0%	9.2%
Hagerstown Jr.	245	27.8%	31.8%	2.4%	0.0%	24.5%	0.0%	1.2%	12.2%
Harford	627	33.2%	40.8%	3.8%	0.3%	12.4%	1.9%	2.1%	5.4%
Howard	462	21.6%	17.7%	4.8%	0.9%	18.6%	3.7%	4.1%	28.6%
Montgomery	2,332	44.0%	19.5%	2.7%	2.3%	8.8%	3.8%	3.2%	15.6%
Prince George's	1,471	40.0%	18.4%	2.4%	2.7%	5.2%	5.2%	4.4%	21.8%
Wor–Wic	234	47.0%	0.0%	4.7%	18.4%	0.4%	2.6%	20.1%	6.8%
All Community Colleges	12,045	41.2%	18.9%	4.7%	3.1%	8.7%	4.0%	4.4%	14.9%
Public Four–Year									
Bowie	269	46.5%	11.2%	16.0%	5.9%	8.2%	1.1%	6.3%	4.8%
Coppin	219	33.8%	32.4%	5.5%	3.2%	12.3%	4.6%	2.3%	5.9%
Frostburg	746	87.9%	12.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Salisbury	480	96.7%	0.4%	1.7%	1.3%	0.0%	0.0%	0.0%	0.0%
Towson	780	82.2%	5.5%	4.7%	3.8%	0.1%	1.2%	1.9%	0.5%
UMBC	816	87.4%	4.3%	2.3%	4.4%	0.4%	0.0%	1.1%	0.1%
UMCP	2,091	69.7%	30.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
UMES	336	43.8%	6.3%	2.7%	6.8%	1.5%	1.8%	6.3%	31.0%
UM System	5,737	74.6%	16.1%	2.2%	2.1%	1.0%	0.5%	1.2%	2.4%
Morgan	498	72.9%	4.0%	6.2%	7.4%	2.6%	0.8%	3.6%	2.4%
St. Mary's	193	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All Public Four–Year	6,428	75.2%	14.7%	2.5%	2.4%	1.1%	0.5%	1.3%	2.3%
All Public Campuses	18,473	53.0%	17.4%	4.0%	2.8%	6.0%	2.8%	3.4%	10.5%

NOTE: Figures include new students who enrolled directly from a high school in the State.

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 2
Type of Remediation Received by 1993–1994
Maryland Community College Freshmen
(By Gender and Race)

	N	No Remediation	Math Only	English Only	Reading Only	Math/English	Math/Reading	English/Reading	Math, English and Reading
Gender									
Men	5,550	41.9%	16.2%	6.4%	2.8%	9.5%	3.2%	4.8%	15.2%
Women	6,492	40.7%	21.1%	3.3%	3.3%	8.0%	4.7%	4.1%	14.7%
Race									
Asian	645	56.9%	10.4%	6.2%	3.7%	4.3%	2.6%	7.3%	8.5%
Black	2,598	23.4%	14.8%	4.1%	2.5%	9.2%	5.7%	7.2%	33.3%
White	8,227	45.5%	20.8%	4.9%	3.2%	9.0%	3.7%	3.4%	9.6%
Other	546	43.2%	19.0%	4.2%	2.4%	7.7%	3.3%	4.2%	15.9%
Race/Gender									
African–American Men	1,125	22.5%	15.0%	4.6%	2.2%	10.2%	4.3%	6.3%	34.8%
African–American Women	1,473	24.0%	14.6%	3.7%	2.7%	8.4%	6.7%	7.8%	32.0%
White Men	3,813	46.1%	17.0%	6.8%	2.9%	9.9%	3.1%	4.1%	10.2%
White Women	4,411	45.0%	24.0%	3.2%	3.5%	8.2%	4.2%	2.8%	9.0%

NOTE: Figures include new students who enrolled directly from a high school in the State.

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 3
Type of Remediation Received by 1993–1994 Freshmen
Maryland Public Four–Year Campuses
(By Gender and Race)

	N	No Remediation	Math Only	English Only	Reading Only	Math/English	Math/Reading	English/Reading	Math, English and Reading
Gender									
Men	3,071	77.1%	14.1%	2.8%	1.8%	0.8%	0.4%	1.3%	1.7%
Women	3,357	73.5%	15.3%	2.2%	2.9%	1.4%	0.6%	1.3%	2.8%
Race									
Asian	619	82.4%	13.1%	1.6%	1.6%	0.2%	0.2%	0.8%	0.2%
Black	1,895	56.5%	16.9%	5.3%	5.5%	3.5%	1.5%	3.6%	7.2%
White	3,667	84.0%	13.0%	1.3%	1.0%	0.1%	0.1%	0.3%	0.2%
Other	201	69.7%	26.9%	0.0%	2.5%	0.0%	0.0%	1.0%	0.0%
Race/Gender									
African–American Men	730	58.9%	15.1%	7.0%	4.8%	2.7%	1.4%	4.0%	6.2%
African–American Women	1,165	54.9%	18.1%	4.2%	6.0%	3.9%	1.5%	3.3%	7.9%
White Men	1,883	84.2%	12.4%	1.5%	0.8%	0.2%	0.1%	0.5%	0.4%
White Women	1,784	83.9%	13.7%	1.0%	1.1%	0.1%	0.1%	0.1%	0.1%

NOTE: Figures include new students who enrolled directly from a high school in the State.

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 4
Percentage of 1993–1994 Freshmen at Maryland Public Campuses
Who Received Math or Other Type of Remediation
(By Race, Gender and Math SAT Scores)

	N	Math Remediation	All Remediation
African–American Men			
290 or less	48	62.5%	85.4%
291 – 340	84	51.2%	67.9%
341 – 390	161	31.7%	52.8%
391 – 440	138	26.1%	50.7%
441 – 490	127	20.4%	41.7%
491 – 540	106	13.2%	21.7%
Over 540	115	6.1%	12.2%
African–American Women			
290 or less	114	62.3%	81.6%
291 – 340	176	59.6%	73.9%
341 – 390	281	44.1%	61.6%
391 – 440	266	21.0%	42.1%
441 – 490	187	15.5%	27.8%
491 – 540	118	11.9%	22.0%
Over 540	86	3.5%	10.5%
White Men			
290 or less	30	56.7%	73.3%
291 – 340	75	65.4%	77.3%
341 – 390	131	45.8%	54.2%
391 – 440	220	30.5%	42.3%
441 – 490	341	16.2%	24.6%
491 – 540	420	14.0%	18.5%
Over 540	1,246	9.6%	11.5%
White Women			
290 or less	71	66.2%	84.5%
291 – 340	111	63.0%	70.3%
341 – 390	215	38.1%	44.7%
391 – 440	266	21.4%	26.7%
441 – 490	378	17.8%	21.7%
491 – 540	459	12.4%	14.8%
Over 540	831	8.5%	10.0%

NOTE: Figures include new students who enrolled directly from a high school in the State.

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 5
Percentage of 1993 – 1994 Freshmen at Maryland Public Campuses
Who Received English, Reading or Other Type of Remediation
(By Race, Gender and English SAT Scores)

	English and/or Reading Remediation		
	N	All Remediation	All Remediation
African – American Men			
290 or less	81	72.9%	77.8%
291 – 340	115	62.6%	71.3%
341 – 390	194	30.4%	47.4%
391 – 440	161	21.1%	32.9%
441 – 490	130	8.4%	29.2%
491 – 540	53	1.9%	9.4%
Over 540	45	6.6%	22.2%
African – American Women			
290 or less	156	73.1%	81.4%
291 – 340	218	52.8%	70.2%
341 – 390	314	32.5%	51.6%
391 – 440	281	16.0%	39.1%
441 – 490	138	5.1%	16.7%
491 – 540	68	0.0%	16.2%
Over 540	53	3.8%	17.0%
White Men			
290 or less	80	71.2%	82.5%
291 – 340	156	33.9%	50.6%
341 – 390	268	19.7%	31.3%
391 – 440	497	8.4%	21.9%
441 – 490	501	2.2%	15.8%
491 – 540	424	2.4%	15.6%
Over 540	545	0.7%	13.0%
White Women			
290 or less	92	68.4%	80.4%
291 – 340	163	31.9%	50.9%
341 – 390	271	13.7%	35.8%
391 – 440	435	6.0%	18.9%
441 – 490	541	2.3%	17.6%
491 – 540	356	1.1%	12.1%
Over 540	473	0.2%	13.5%

NOTE: Figures include new students who enrolled directly from a high school in the State.

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 6
Performance of 1993–1994 Freshmen at Maryland Public Campuses in
Their First Math and English Course on the Basis of the Type of Remediation They Received

	No Remediation	Math Only	English Only	Reading Only	Math/ English	Math/ Reading	English/ Reading	Math, English and Reading	All Students
<u>FIRST MATH COURSE</u>									
<u>Community Colleges</u>									
% Passed	84%	80%	77%	86%	76%	74%	72%	68%	81%
% Failed	16%	20%	23%	14%	24%	26%	28%	32%	19%
Average Grade	2.3	2.0	1.9	2.1	1.8	1.6	1.8	1.4	2.1
<u>Public Four–Year</u>									
% Passed	89%	77%	85%	88%	73%	67%	81%	79%	87%
% Failed	11%	23%	15%	12%	27%	33%	19%	21%	13%
Average Grade	2.5	1.8	2.1	2.4	1.6	1.5	2.0	1.6	2.3
<u>FIRST ENGLISH COURSE</u>									
<u>Community Colleges</u>									
% Passed	87%	81%	83%	86%	80%	78%	87%	80%	84%
% Failed	13%	19%	17%	14%	20%	22%	13%	20%	16%
Average Grade	2.4	2.1	2.1	2.1	1.9	1.8	2.1	1.8	2.2
<u>Public Four–Year</u>									
% Passed	95%	94%	92%	94%	89%	93%	97%	94%	94%
% Failed	5%	6%	8%	6%	11%	7%	3%	6%	6%
Average Grade	2.7	2.5	2.3	2.4	2.0	2.3	2.3	2.0	2.6

NOTE: Figures include new students who enrolled directly from a high school in the State.

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 7
Grade Point Averages of 1993–1994 Freshmen at Maryland Public Campuses
After Their First Year of Study on the Basis of the Type of Remediation They Received

	No Remediation	Math Only	English Only	Reading Only	Math/ English	Math/ Reading	English/ Reading	Math, English and Reading	All Students
Community Colleges	2.3	1.9	1.8	1.9	1.6	1.6	1.5	1.3	2.0
Public Four-Year	2.6	2.3	2.2	2.4	2.0	1.8	2.1	1.9	2.5

NOTE: Figures include new students who enrolled directly from a high school in the State.

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 8
Admissions Status of 1993–1994 Freshmen at Maryland Public Four–Year Campuses
on the Basis of the Type of Remediation They Received

	N	No Remediation	Math Only	English Only	Reading Only	Math/English	Math/Reading	English/Reading	Math, English and Reading
Admitted on Exemption	342	33.9%	11.4%	5.3%	8.2%	3.8%	2.6%	5.3%	29.5%
Regular Admissions	6,086	77.5%	14.9%	2.3%	2.1%	1.0%	0.4%	1.1%	0.8%

NOTE: Figures include new students who enrolled directly from a high school in the State.

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 9
Techniques Used at Maryland Public Campuses to Identify and Place Underprepared Students

	Placement by Review of High School Record, SAT/ACT Scores, and/or	
	Placement Test	Interviews
<u>Community Colleges</u>		
Allegany	X	-
Anne Arundel	X	X
Baltimore City	X	-
Carroll	X	X
Catonsville	X	X
Cecil	X	X
Charles County	X	-
Chesapeake	X	-
Dundalk	X	-
Essex	X	-
Frederick	X	-
Garrett	X	-
Hagerstown Jr.	X	X
Harford	X	-
Howard	X	-
Montgomery	X	-
Prince George's	X	-
Wor-Wic	X	-
All Community Colleges	18	5
<u>Public Four-Year</u>		
Bowie	X	X
Coppin	X	-
Frostburg	X	X
Salisbury	X	X
Towson	X	X
University of Baltimore	X	-
UMBC	X	-
UMCP	X	-
UMES	X	-
UMUC	X	-
UM System	10	4
Morgan	X	-
All Four-Year	11	4
All Public Institutions	29	9

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

Table 10
Types of Tests and Instruments Used at
Maryland Public Campuses to
Identify and Place Underprepared Students

	Community Colleges	Public Four– Year Campuses	All Public Campuses
Mathematics			
ETS Computerized Placement Tests (ACCUPLACER)	7	2	9
ETS Descriptive Test of Mathematic Skills (DTMS)	3	2	5
In House/Institutionally Developed	2	2	4
Mathematical Association of America	–	4	4
ACC Placement Test	2	–	2
ACT ASSET (Various Math Tests)	1	1	2
ETS Assessment Placement Test for Community Colleges Students	1	–	1
Cooperative Mathematics Tests	1	–	1
Stanford Test of Academic Skills (TASK)	1	–	1
New Jersey Test of Basic Skills	–	1	1
English/Writing			
ETS Computerized Placement Tests (ACCUPLACER)	5	2	7
ETS Computerized Placement Test for Community College Students	5	–	5
In House/Institutionally Developed	2	2	4
Test of Standard Written English (TSWE)	3	–	3
ACT ASSET – Writing	1	1	2
ETS – CGP	1	–	1
Stanford Test of Academic Skills (TASK)	1	–	1
Reading			
Nelson–Denny Reading Test	5	2	7
ETS Computerized Placement Tests (ACCUPLACER)	5	1	6
ETS – DTLS	2	2	4
New Jersey Test of Basic Skills	–	3	3
ETS Assessment Placement Tests for Community College Students	2	–	2
Stanford Diagnostic Reading Test	2	–	2
ETS – CGP	1	–	1
ACT ASSET – Reading	1	–	1
Iowa Silent Reading Test	1	–	1

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

Table 11
How Cut-Off Scores Are Determined for the Placement of Underprepared Students at Maryland Public Campuses

	Locally--	Nationally--	Grade--	Specific	Other
	Developed Norms	Developed Norms	Level Equivalencies	Deficiencies and Competencies	
Community Colleges					
Allegany	-	X	-	-	-
Anne Arundel	X	X	-	-	-
Baltimore City	X	-	-	-	X
Carroll	X	-	-	-	-
Catonsville	X	-	-	-	-
Cecil	X	-	-	-	-
Charles County	X	X	-	X	-
Chesapeake	X	-	-	-	-
Dundalk	-	X	-	-	-
Essex	X	-	-	X	-
Frederick	X	X	-	-	-
Garrett	-	X	-	-	-
Hagerstown Jr.	X	-	X	-	-
Harford	X	-	-	-	-
Howard	X	-	-	-	-
Montgomery	X	X	X	-	-
Prince George's	X	-	-	-	-
Wor--Wic	-	X	X	-	-
All Community Colleges	14	8	3	2	1
Public Four--Year					
Bowie	X	-	-	-	-
Coppin	X	-	-	-	-
Frostburg	X	-	-	-	-
Salisbury	X	-	-	-	-
Towson	X	-	X	-	-
University of Baltimore	X	-	-	-	-
UMBC	X	X	X	-	-
UMCP	X	-	-	-	-
UMES	X	-	-	-	-
UMUC	X	X	-	-	-
UM System	10	2	2	0	0
Morgan	X	-	-	-	-
All Four--Year	11	2	2	0	0
All Public Campuses	25	10	5	2	1

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

Table 12
Types of Entering Students Who Are Assessed at
Maryland Public Campuses

	All Students	All New Students	Full-Time Students	Degree-Seeking Students	Students Enrolled in Certain Courses (English and Math)	Transfer Students Without Certain Coursework or Number of Credits	All ESOL Students	Students With a Certain Number of Credits	High School Students
Community Colleges									
Allegany	-	-	-	X	X	X	-	-	-
Anne Arundel	-	-	-	X	X	-	X	-	X
Baltimore City	-	X	-	X	-	X	-	X	-
Carroll	X	-	-	-	-	-	-	-	-
Catonsville	-	-	X	X	X	-	X	-	X
Cecil	-	-	-	X	X	-	-	-	-
Charles County	X ①	-	-	-	-	-	-	-	-
Chesapeake	-	X	-	-	X	-	-	-	-
Dundalk	X	-	-	-	-	-	-	-	-
Essex	-	-	-	X	X	-	-	-	-
Frederick	X ②	-	-	-	-	-	-	-	-
Garrett	X ③	-	-	-	-	-	-	-	-
Hagerstown Jr.	X	-	-	-	-	-	-	-	-
Harford	X	-	-	-	-	-	-	-	-
Howard	-	-	-	X	X	-	-	X	-
Montgomery	-	X	X	X	X	-	-	-	-
Prince George's	-	-	-	X	X	-	-	-	-
Wor-Wic	-	X	-	-	X	-	-	X	X
All Community Colleges	7	4	2	10	10	2	2	3	3

Table 12
Types of Entering Students Who Are Assessed at
Maryland Public Campuses

	All Students	All New Students	Full-Time Students	Degree-Seeking Students	Students Enrolled in Certain Courses (English and Math)	Transfer Students Without Certain Coursework or Number of Credits	All ESOL Students	Students With a Certain Number of Credits	High School Students
Public Four-Year									
Bowie	-	X	-	-	-	-	-	-	-
Coppin	-	X	-	X	-	X	-	-	-
Frostburg	-	X	-	-	-	X	-	-	-
Salisbury	-	X ④	-	-	-	-	-	-	-
Towson	-	X ⑤	-	-	-	X ⑥	-	-	-
University of Baltimore	-	-	-	-	X	-	-	-	-
UMBC	-	X ⑥	-	-	-	X ⑥	-	-	-
UMCP	X	-	-	-	-	-	-	-	-
UMES	-	X ⑦	-	-	-	X ⑦	-	-	-
UMUC	X	-	-	-	-	-	-	-	-
UM System	2	7	-	1	1	5	-	-	-
Morgan	-	X	-	-	-	X ⑥	-	-	-
All Public Four-Year	2	8	-	1	1	6	-	-	-
All Public Campuses	9	12	2	10	11	8	2	3	3

- ① Virtually all.
- ② Some exemptions apply.
- ③ All students are tested except those taking courses for enrichment or personal interest.
- ④ Just degree-seeking freshmen who score in a particular range on the SAT.
- ⑤ Those with less than 30 transferable credits who score within a particular range on the SAT.
- ⑥ Those who do not transfer English composition or prerequisite math course credits.
- ⑦ Those with less than 12 credits.
- ⑧ Those transferring fewer than 12 credit hours or who have not successfully completed an English or math course.

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

Table 13
Requirements for Leaving Remedial Courses or Programs at
Maryland Public Campuses

	Satisfactory Completion of a Course or Program Sequence	Passing an Exit Exam	Either
Community Colleges			
Allegany	—	—	X
Anne Arundel	X	—	—
Baltimore City	X	—	—
Carroll	X	—	—
Catonsville	X	X ①	—
Cecil	X	—	—
Charles County	—	X	—
Chesapeake	X	—	—
Dundalk	X	—	—
Essex	—	X	—
Frederick	X	X	—
Garrett	X	X	—
Hagerstown Jr.	X	—	—
Harford	X	X	—
Howard	—	—	X
Montgomery	X	X	—
Prince George's	X	—	—
Wor–Wic	X	X	—
All Community Colleges	14	8	2
Public Four–Year			
Bowie	X ②	—	—
Coppin	X	X	—
Frostburg	X	—	—
Salisbury	X	X ③	—
Towson	X ④	X ④	—
University of Baltimore	X	—	—
UMBC	X	—	—
UMCP⑤	—	—	—
UMES	—	—	X
UMUC	X	—	—
UM System	8	3	1
Morgan	X	—	—
All Public Four–Year	9	3	1
All Public Campuses	23	11	3

- ① Students in remedial English must pass an exit writing sample.
- ② Departmental evaluation of competency also required in English.
- ③ Required in some cases in remedial math.
- ④ Exit test in math; successful completion of coursework in writing and reading.
- ⑤ Not applicable.

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

Table 14
Limitations on the Number of Times Students
May Take Remedial Classes or Exam

	None	Limit of Two Times	Limit of Three Times	Other Special Limitations
Community Colleges				
Allegany	X	—	—	
Anne Arundel	—	—	—	Students may repeat once a course in which grade was D. or F.
Baltimore City	—	X	—	
Carroll	—	X	—	
Catonsville	—	X	—	
Cecil	X	—	—	
Charles County	—	X	—	
Chesapeake	X	—	—	
Dundalk	—	X	—	
Essex	—	—	X	Students must wait two regular semesters before enrolling for fourth time.
Frederick	X	—	—	
Garrett	—	X	—	
Hagerstown Jr.	—	X	—	
Harford	—	—	X	
Howard	X	—	—	Exit test can be taken only twice in a two-year period.
Montgomery	—	—	X	
Prince George's	—	X	—	
Wor–Wic	X	—	—	
All Community Colleges	6	8	3	
Public Four–Year				
Bowie	—	X	—	Limit applies to developmental math.
Coppin	X	—	—	
Frostburg	—	X	—	
Salisbury	—	—	—	Limit of two semesters and one summer session.
Towson	—	—	X	Exit test limitations vary by subject.
University of Baltimore	X	—	—	
UMBC	—	—	X	
UMCP ^①	—	—	—	
UMES	X	—	—	
UMUC	X	—	—	
UM System	4	2	2	
Morgan	X	—	—	
All Public Four–Year	5	2	2	
All Public Campuses	11	10	5	

① Not applicable.

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

Table 15
Number of Remedial Courses and Programs, By Type,
Offered at Maryland Public Campuses

	Math Courses	Writing Courses	Reading Courses	Writing/Reading Courses	Mixed Courses	Skills Lab, Learning Center and/or Tutoring Activity
Community Colleges						
Allegany	2	2	2	—	2	—
Anne Arundel	4	—	—	19	—	X
Baltimore City	3	3	3	—	—	—
Carroll	—	—	—	4	2	—
Catonsville	5	4	3	5	—	X
Cecil	2	2	2	—	—	X
Charles County	2	2	2	—	—	—
Chesapeake	4	2	—	2	—	—
Dundalk	4	—	—	4	—	—
Essex	1	4	2	—	—	X
Frederick	3	2	2	—	—	X
Garrett	6	3	2	—	—	X
Hagerstown Jr.	3	2	—	3	—	—
Harford	3	2	2	—	—	X
Howard	3	6	4	—	—	X
Montgomery	2	3	—	13	—	—
Prince George's	—	—	—	—	—	—
Wor–Wic	3	2	2	—	—	—
All Community Colleges	50	39	26	50	4	8
Public Four–Year						
Bowie	—	—	—	2	1	—
Coppin	2	1	1	—	—	X
Frostburg	1	—	—	—	—	X
Salisbury	1	—	1	—	—	—
Towson	2	1	1	—	—	—
University of Baltimore	1	—	—	—	—	X
UMBC	1	2	1	—	—	—
UMCP	2	—	—	—	—	—
UMES	—	—	—	—	—	X
UMUC	3	—	—	—	—	X
UM System	13	4	4	2	1	5
Morgan	1	1	1	—	—	—
All Public Four–Year	14	5	5	2	1	5
All Public Campuses	64	44	31	52	5	13

SOURCE: Maryland Higher Education Commission High School Graduate System

Table 16
Methods Used on Annual Basis to Evaluate Remedial Activities at Maryland Public Campuses

	Student Evaluation of Courses	Instruction Evaluation of Courses	Student Completion Rate for Courses	Follow-Up Studies	Faculty Surveys	Effectiveness Studies of Courses	Other
Community Colleges							
Alegany	X	—	X	—	—	—	—
Anne Arundel	X	X	X	—	—	—	—
Baltimore City	X	X	X	X	X	X	—
Carroll	X	X	X	X	X	X	—
Catonsville	X	X	X	X	X	—	—
Cecil	X	X	X	X	—	—	—
Charles County	X	X	—	—	—	—	—
Chesapeake	X	X	X	—	—	—	—
Dundalk	X	X	X	—	—	X	X ^①
Essex	X	—	X	—	—	X	—
Frederick	X	X	X	X	—	—	—
Garrett	X	—	X	X	—	—	—
Hagerstown Jr.	X	X	X	X	—	—	—
Harford	X	X	X	X	—	—	—
Howard	X	X	X	X	—	—	—
Montgomery	X	—	—	X	—	—	—
Prince George's	X	X	—	—	—	—	—
Wor-Wic	X	X	X	X	—	X	X ^②
All Community Colleges	18	14	15	11	3	5	2
Public Four-Year							
Bowie	X	X	X	X	—	—	X ^③
Coppin	X	—	X	—	—	X	—
Frostburg	X	X	X	X	—	X	—
Salisbury	X	—	X	X	—	X	—
Towson	X	—	—	—	—	—	—
University of Baltimore	X	—	X	X	—	—	—
UMBC	X	X	X	—	—	—	X ^④
UMCP	X	—	—	X	—	—	—
UMES	X	X	X	X	X	—	X ^⑤
UMUC	X	X	X	X	—	—	—
UM System	10	5	8	7	1	3	3
Morgan	X	X	X	X	X	X	—
All Public Four-Year	11	6	9	8	2	4	3
All Public Campuses	29	20	24	19	5	9	5

- ① Retention studies.
- ② Course pass rates of students in remedial activities.
- ③ Faculty recommendations at the end of each semester.
- ④ Nelson-Denny post testing.
- ⑤ Evaluation of instructors.

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

Table 17
Four-Year Success Rate of 1991 New Full-Time
Maryland Community College Students on the
Basis of the Type of Remediation They Received in College

	N	Transferred To Four-Year	Graduated/ Did Not Transfer	Still Enrolled	Dropped
No Remediation	2,935	38.1%	11.1%	9.0%	41.8%
Math Only	1,440	29.1%	12.9%	10.8%	47.3%
English Only	317	24.6%	8.8%	14.2%	52.4%
Reading Only	508	38.5%	5.1%	13.2%	43.1%
Math and English	528	14.7%	12.3%	11.2%	61.7%
Math and Reading	771	23.4%	4.8%	15.6%	56.3%
English and Reading	365	26.3%	4.6%	14.6%	54.5%
Math, English and Reading	954	11.0%	6.6%	13.4%	69.0%
All Students	7,818	29.1%	9.6%	11.3%	50.0%

NOTE: Figures include students who held full-time status at a Maryland community college in fall 1991 and who enrolled directly from a high school in the State.

Sources: *Maryland Higher Education Commission Enrollment, Degree and High School Graduate Information Systems.*

Table 18
 Four-Year Success Rate of 1991 New Full-Time
 Maryland Community College Students on the
 Basis of the Type of Remediation They Received in College
 (African-Americans)

	N	Transferred To Four-Year	Graduated/ Did Not Transfer	Still Enrolled	Dropped
No Remediation	240	30.0%	5.9%	7.5%	56.7%
Math Only	115	17.4%	2.6%	17.3%	62.6%
English Only	71	21.1%	0.0%	18.3%	60.6%
Reading Only	64	20.4%	4.7%	11.0%	64.1%
Math and English	103	12.6%	1.0%	15.6%	70.9%
Math and Reading	186	11.3%	2.1%	15.6%	71.0%
English and Reading	116	19.8%	2.6%	15.5%	62.1%
Math, English and Reading	416	10.3%	1.9%	14.7%	73.1%
All Students	1,311	16.8%	2.8%	13.9%	66.6%

NOTE: Figures include students who held full-time status at a Maryland community college in fall 1991 and who enrolled directly from a high school in the State.

Sources: Maryland Higher Education Commission Enrollment, Degree and High School Graduate Information Systems.

Table 19
Retention and Graduation Rates of New Full-Time Students
in Maryland Public Four-Year Institutions on the Basis of
the Type of Remediation They Received

Students Enrolled After:	Class of 1991					Class of 1992			Class of 1993	
	1 Year	2 Years	3 Years	4 Years		1 Year	2 Years	3 Years	1 Year	2 Years
				Enrolled	Graduated					
No Remediation	82.5%	72.2%	67.2%	36.1%	26.3%	84.9%	74.4%	70.2%	82.1%	71.3%
Math Only	80.8%	68.4%	64.7%	41.7%	17.6%	80.8%	69.2%	65.7%	81.8%	68.5%
English Only	79.7%	64.2%	54.5%	35.8%	13.0%	82.2%	62.8%	58.1%	75.5%	62.6%
Reading Only	82.7%	67.9%	61.7%	36.4%	17.9%	72.4%	59.0%	50.5%	85.4%	75.5%
Math and English	84.6%	65.4%	53.8%	34.6%	7.7%	83.0%	64.8%	53.9%	73.4%	59.4%
Math and Reading	64.1%	59.0%	59.0%	33.3%	10.3%	87.9%	75.8%	54.5%	70.0%	53.3%
English and Reading	81.4%	67.1%	55.7%	41.9%	9.6%	79.5%	73.5%	61.4%	72.2%	62.0%
Math, English and Reading	64.9%	57.7%	53.2%	32.4%	13.5%	67.6%	45.0%	34.2%	72.7%	48.3%
All Students	81.8%	71.1%	67.0%	36.7%	24.2%	83.8%	72.6%	67.1%	81.5%	69.9%

Note: Figures include students who held full-time status at a Maryland public four-year institution in fall 1991, 1992 and 1993 and who enrolled directly from a high school in the State. Retention rates refer to the students who remained enrolled at the campus at which they originally entered.

Sources: *Maryland Higher Education Commission Enrollment, Degree and High School Graduate Information Systems*

Table 20
Retention and Graduation Rates of New Full–Time Students
in Maryland Public Four–Year Institutions on the Basis of
the Type of Remediation They Received
(African – Americans)

Students Enrolled After:	Class of 1991					Class of 1992			Class of 1993	
	1 Year	2 Years	3 Years	4 Years		1 Year	2 Years	3 Years	1 Year	2 Years
				Enrolled	Graduated					
No Remediation	78.8%	66.6%	60.0%	38.0%	16.4%	84.2%	71.6%	64.2%	79.4%	67.0%
Math Only	79.2%	64.4%	57.7%	38.9%	10.1%	80.0%	65.4%	61.7%	77.5%	61.1%
English Only	71.4%	57.1%	39.3%	42.9%	0.0%	81.1%	60.4%	52.8%	76.8%	63.2%
Reading Only	83.5%	68.9%	65.0%	38.8%	15.5%	72.9%	62.5%	62.5%	86.4%	77.7%
Math and English	*	*	*	*	*	82.4%	63.5%	52.2%	73.3%	60.0%
Math and Reading	68.8%	65.6%	65.6%	34.4%	12.5%	89.3%	75.0%	57.1%	72.0%	56.0%
English and Reading	82.9%	65.9%	56.1%	41.5%	10.6%	82.5%	70.0%	60.0%	71.0%	59.7%
Math, English and Reading	67.4%	58.7%	55.4%	32.6%	15.2%	67.7%	45.5%	36.4%	75.2%	49.6%
All Students	78.5%	65.9%	59.0%	38.0%	14.9%	82.2%	67.9%	60.3%	78.5%	64.5%

Note: Figures include students who held full–time status at a Maryland public four–year institution in fall 1991, 1992 and 1993 and who enrolled directly from a high school in the State. Retention rates refer to the students who remained enrolled at the campus at which they originally entered. An asterisk designates cases in which there were fewer than 15 students.

Sources: *Maryland Higher Education Commission Enrollment, Degree and High School Graduate Information Systems*

Table 21
Number of Faculty at Maryland Public Campuses Who Taught at Least One Remedial Course or Program and Whether Remedial Faculty Receive Training in Instructional Techniques

	Number of Faculty			Receive Training?			
	Full-Time	Part-Time	Total	Yes, All Cases	Yes, Most Cases	Yes, Some Cases	No
Community Colleges							
Allegany	12	21	33	—	—	—	X
Anne Arundel	44	54	98	—	—	X	—
Baltimore City	25	57	82	X	—	—	—
Carroll	11	18	29	X	—	—	—
Catonsville	33	74	107	X	—	—	—
Cecil	9	14	23	X	—	—	—
Charles County	9	37	46	—	—	—	X
Chesapeake	3	14	17	X	—	—	—
Dundalk	15	28	43	—	X	—	—
Essex	33	89	122	X	—	—	—
Frederick	13	30	43	—	—	X	—
Garrett	3	13	16	—	X	—	—
Hagerstown Jr.	7	15	22	—	—	—	X
Harford	3	40	43	—	X	—	—
Howard	18	20	38	—	X	—	—
Montgomery	88	114	202	—	—	X	—
Prince George's	13	42	55	—	X	—	—
Wor-Wic	7	12	19	X	—	—	—
All Community Colleges	346	692	1,038	7	5	3	3
Public Four-Year							
Bowie	6	3	9	—	X ^②	—	—
Coppin	3	11	14	—	—	X	—
Frostburg ^①	0	0	0	X	—	—	—
Salisbury	1	0	1	—	X	—	—
Towson	3	12	15	—	—	X	—
University of Baltimore	1	0	1	—	—	—	X
UMBC	0	1	1	X	—	—	—
UMCP	16	6	22	—	X	—	—
UMES	3	10	13	—	X	—	—
UMUC	0	22	22	—	X	—	—
UM System	33	65	98	2	5	2	1
Morgan ^③	2	1	3	—	—	—	—
All Public Four-Year	35	66	101	2	5	2	1
All Public Campuses	381	758	1,139	9	10	5	4

① Two administrators and five students provide the instruction for remedial classes.

② In most cases in English and reading; all cases, in mathematics.

③ Faculty development typically takes the form of attendance at relevant workshops and meetings outside the University

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

Table 22
Total Expenditures for Remedial Education at Maryland Public Campuses
in FY 1995 and Comparisons to FY 1984
(Figures in Thousands)

	FY 1995				FY 1984	
	Remedial Courses	Other Remedial	Total Remedial	% of Total Expenditures	Total Remedial	% of Total Expenditures
Community Colleges						
Allegany	\$ 293.6	\$ 80.2	\$ 373.8	2.9%	\$ 134.3	1.8%
Anne Arundel	2,052.9	0.0	2,052.9	6.0%	379.6	2.4%
Baltimore City	929.7	264.9	1,194.7	5.0%	1,906.8	7.9%
Carroll	183.9	18.5	202.4	2.4%	—	—
Catonsville	1,016.5	28.0	1,044.5	3.2%	285.8	1.1%
Cecil	623.6	0.0	623.6	7.3%	185.3	4.9%
Charles County**	151.2	0.0	151.2	0.8%	61.6	0.7%
Chesapeake	217.0	94.4	311.4	4.1%	53.8	1.2%
Dundalk	1,203.9	46.6	1,250.5	9.1%	387.7	4.5%
Essex	1,430.6	92.2	1,522.8	5.2%	312.6	1.5%
Frederick	363.0	449.9	812.9	5.6%	98.8	1.8%
Garrett	82.4	29.1	111.5	2.8%	48.6	2.2%
Hagerstown Jr.	212.2	20.3	232.5	2.0%	108.9	2.1%
Harford	312.7	145.1	457.7	2.5%	130.5	1.2%
Howard	900.6	234.0	1,134.6	5.0%	81.6	1.1%
Montgomery**	3,177.1	0.0	3,177.1	3.7%	1,105.2	2.4%
Prince George's	1,218.3	0.0	1,218.3	2.9%	435.0	1.6%
Wor-Wic	298.5	0.0	298.5	4.5%	49.3	2.0%
All Community Colleges	14,667.7	1,503.2	16,170.9	4.1%	5,765.2	2.6%
Public Four-Year						
Bowie	88.8	23.9	112.8	0.4%	137.7	1.2%
Coppin	127.6	16.5	144.1	0.7%	196.1	1.4%
Frostburg	10.4	0.0	10.4	*	116.5	0.7%
Salisbury	25.9	5.0	30.9	0.1%	143.0	0.9%
Towson	90.7	0.0	90.7	0.1%	133.2	0.3%
University of Baltimore	12.6	0.4	13.0	*	—	—
UMBC	10.2	0.9	11.1	*	48.6	0.1%
UMCP	370.0	0.0	370.0	0.1%	293.6	0.1%
UMES	110.0	343.0	453.0	1.7%	185.0	1.4%
UMUC	114.0	2.0	116.0	0.1%	—	—
UM System	960.2	391.7	1,351.9	0.1%	1,253.7	0.3%
Morgan	93.4	0.0	93.4	0.2%	263.7	0.9%
St. Mary's	—	—	—	—	15.0	0.2%
All Public Four-Year	1,053.6	391.7	1,445.3	0.1%	1,532.4	0.3%
All Public Campuses	15,721.3	1,894.9	17,616.2	1.2%	7,297.6	1.1%

* Less than 0.1 percent

** Instructional Salary Costs Only in FY 1995

SOURCES: Maryland Higher Education Commission Survey of Remedial Education; Maryland State Board for Higher Education Report, Remedial Education in Maryland's Public Higher Education Institutions (1985); FY 1997 Campus Budget Requests; Maryland Higher Education Commission Form CC-4

Table 23
Revenue Sources for Remedial Education
Maryland Public Campuses
(FY 1995)

	General Institutional Funds	Special Fees	Federal Grants and Contracts	All Other Sources
Community Colleges				
Allegany	94.0%	0.8%	1.5%	3.7%
Anne Arundel	100.0%	0.0%	0.0%	0.0%
Baltimore City	79.2%	0.0%	20.8%	0.0%
Carroll	100.0%	0.0%	0.0%	0.0%
Catonsville	99.8%	0.0%	0.2%	0.0%
Cecil	100.0%	0.0%	0.0%	0.0%
Charles County	100.0%	0.0%	0.0%	0.0%
Chesapeake	76.1%	0.0%	23.9%	0.0%
Dundalk	96.4%	0.0%	0.6%	0.0%
Essex	99.9%	0.0%	0.1%	0.0%
Frederick	97.6%	0.0%	2.4%	0.0%
Garrett	100.0%	0.0%	0.0%	0.0%
Hagerstown Jr.	95.4%	0.0%	4.6%	0.0%
Harford	100.0%	0.0%	0.0%	0.0%
Howard	82.5%	0.0%	17.5%	0.0%
Montgomery	100.0%	0.0%	0.0%	0.0%
Prince George's	100.0%	0.0%	0.0%	0.0%
Wor-Wic	86.0%	0.0%	14.0%	0.0%
All Community Colleges	95.8%	*	4.1%	0.1%
Public Four-Year				
Bowie	32.5%	53.2%	14.3%	0.0%
Coppin	88.5%	0.0%	11.5%	0.0%
Frostburg	55.9%	0.0%	44.1%	0.0%
Salisbury	100.0%	0.0%	0.0%	0.0%
Towson	100.0%	0.0%	0.0%	0.0%
University of Baltimore	84.5%	0.0%	0.0%	15.5%
UMBC	55.6%	43.2%	1.2%	0.0%
UMCP	0.0%	100.0%	0.0%	0.0%
UMES	43.3%	0.0%	56.7%	0.0%
UMUC	100.0%	0.0%	0.0%	0.0%
UM System	46.3%	32.7%	20.8%	0.1%
Morgan	77.8%	0.0%	22.2%	0.0%
All Public Four-Year	48.2%	30.8%	20.9%	0.1%
All Public Campuses	91.9%	2.6%	5.5%	0.1%

* Less than 0.1 percent

NOTE: Figures include revenues for both remedial courses and other remedial activities.

SOURCE: Maryland Higher Education Commission Survey of Remedial Education

APPENDIX

SURVEY QUESTIONNAIRE

SURVEY OF REMEDIAL EDUCATION

Purpose of the Study

The problem of students who are academically underprepared for college is so pervasive that most public postsecondary institutions offer remedial and developmental programs. The availability of these programs at both two- and four-year institutions raises serious policy questions related to the role and mission of campuses, funding priorities, and academic standards. Because of the growing interest in these issues by higher education administrators and state officials, the Maryland Higher Education Commission is undertaking a comprehensive study of remedial education at public colleges and universities. Members of the Commission have expressed keen interest in the outcome of this study.

This study will include an examination of the number and type of students who require remediation, the policies and standards that are used to determine student placement, the kinds of remedial activities offered, the success of remedial students and the evaluation of remedial programs, staffing for remedial courses, the cost of remedial education, and the sources from which it is funded. The data related to participation will be obtained from the Commission's Student Outcome and Achievement Report. The following questionnaire has been designed to collect the additional information.

Definition of Remedial Education

For the purpose of this study, remedial education refers to programs, courses or activities designed specifically for college students who have basic deficiencies in college-level reading, written or oral communication, mathematics, or other skills, as defined by the institution. The term *developmental education*, which is used by some institutions, is interchangeable with *remedial education* in this study. Courses in English as a Second Language are considered remedial only if they are intended to equip students who are underprepared to do college-level work.

I. Number of Underprepared Students

Give the total unduplicated number of underprepared students who were enrolled at your institution during the 1994-1995 academic year (summer, fall and spring terms). This figure should include 1) all first-time entering students and transfer students who were assessed and identified as underprepared and 2) all other students enrolled in remedial education programs.

II. Institutional Policies and Placement

If any of the following information is contained in a publication, you may attach a copy in lieu of writing an answer. Use additional sheets if necessary to complete the questions.

Does your institution have written policies, standards or guidelines that are used for the placement of academically underprepared students?

- 1) _____ Yes (please attach a copy)
- 2) _____ No

Please describe the tests and instruments that are used at your institution to identify and place underprepared students in remedial courses.

Please describe how the cut-off scores are determined for the placement of underprepared students in remedial courses at your institution (examples: locally or nationally developed norms, grade-level equivalencies, specific deficiencies or competencies).

Are all groups of entering students assessed?

- 1) _____ Yes
- 2) _____ No

If no, which groups of students are assessed (for example, degree-seeking students, community college students planning to transfer, students taking a certain number of credits, students enrolling in particular classes or programs)?

What policies does your institution have to determine when students can leave remedial courses or programs (such as completing a course or program sequence or passing an exit test)?

Are there limitations on the number of times students may take remedial classes or an examination? If there are limitations, indicate what they are.

III. Courses and Programs

Please record the following information about remedial education courses and programs at your institution in the table below. Attach additional sheets if necessary.

Activity. Identify the programs, courses and other remedial activities at your institution which fit the above definition of remedial education. An activity can be a comprehensive program (one with a number of different components), a course of study, a skills lab, a learning center or tutoring.

Skill Area. Indicate the skill area(s) addressed by each remedial activity using the following code:

1. Mathematical skills
2. Writing and/or verbal communication skills
3. Reading skills

Some activities may emphasize more than one skills area. For example, a remedial English course may emphasize both reading and writing skills. Code both numbers in the table in these cases. No information is required about skill areas other than the above three.

Credit. Indicate whether students receive credit for the completion of the remedial coursework using the following code:

1. Degree credit. Counts toward the grade point average and an academic degree
2. Institutional credit. Counts toward status as a full-time or part-time student but not toward a degree
3. No credit

TYPES OF COURSES AND PROGRAMS		
Activity	Skill Areas	Credit

Are students allowed to enroll in remedial courses and regular courses at the same time?

- 1) _____ No
- 2) _____ Yes, with restrictions (specify _____)
- 3) _____ Yes, without restrictions

Does your institution offer summer courses or programs for students needing remediation?

- 1) _____ Yes, and participation is a condition of admission
- 2) _____ Yes, but participation is not a condition of admission
- 3) _____ No

IV. Evaluation

Indicate which of the following methods are used on at least an annual basis to evaluate remedial activities at your institution. Check all that apply.

- _____ Student evaluation of courses, activities or programs
- _____ Instructor evaluation of courses, activities or programs
- _____ Tabulation of student completion rates for courses, activities or programs
- _____ Follow-up studies of the academic performance of remedial students
- _____ Faculty surveys other than instructor evaluations
- _____ Effectiveness studies of courses and programs
- _____ Other (specify _____)

If there are methods of evaluation used at your institution less frequently than one year, please indicate them.

V. Faculty

Give the total unduplicated number of full- and part-time faculty who taught at least one remedial course or program at your institution or participated in other remedial education activities during the 1994-1995 academic year.

Full-Time _____ Part-Time _____

Do the faculty who teach remedial education at your institution receive as a matter of policy prior, concurrent or in-service training (coursework or staff development) in the instructional techniques appropriate for their classes?

- _____ Yes, in all cases
- _____ Yes, in most cases
- _____ Yes, in some cases
- _____ No

VI. Funding

Please supply the following information for FY 1995 about the funding of remedial courses and all other remedial activities combined. "Other remedial activities" may include tutors, readers, assessment materials and services, and office and lab support. Please provide your best estimate if it is not possible to supply exact figures. You should prorate expenditures for services that are used by both remedial and nonremedial students.

Expenditures. Report the total number of dollars associated with the cost of providing the remedial activity.

Remedial courses _____ Other remedial activities _____

Revenue Sources. Report the **amount of money** obtained from each source. "Special fees" are those that are assessed to students beyond normal tuition and fee charges.

	Remedial Courses	Other Remedial
1. General institutional funds	_____	_____
2. Special fees	_____	_____
3. Federal grants and contracts	_____	_____
4. Local grants and contracts	_____	_____
5. Private grants and contracts	_____	_____
6. All other sources	_____	_____

Thank you for your help with this survey. Please return it to Dr. Michael Keller, Maryland Higher Education Commission, 16 Francis Street, Annapolis, MD 21401-1781. Questions about the survey should be directed to Dr. Keller at (410) 974-2971.

